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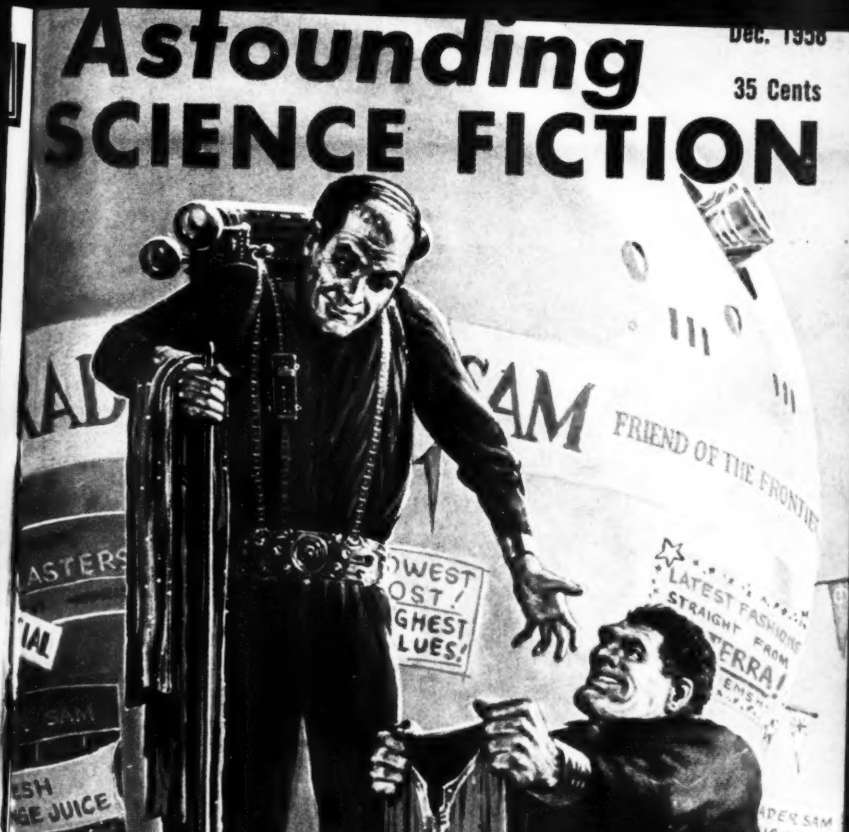

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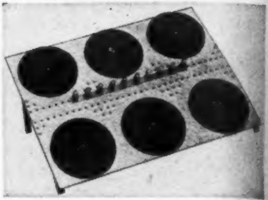

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TEXT PREPARED BY MIT SPECIALIST

Dr. Claude Shannon, known to the readers of "ASTOUNDING" for his invention of the electronic mouse, that runs a maze, learning as it goes, formerly a research mathematician for Bell Telephone Laboratories is now a research associate at MIT. His books include publications on Communication theory and the recent volume "Automat Studies" on the theory of robot construction. He has prepared a paper entitled "A Symbolic Analysis of Relay and Switching Circuits" which is available to purchasers of the **GENIAC.** Covering the basic theory necessary for advanced circuit design it vastly extends the range of our kit.

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COVER BY EMSH

Illustrations by Freas, Martinez and van Dongen

DECEMBER
1958

The editorial contents have not been published before, are protected by copyright and cannot be reprinted without publisher's permission. All stories in this magazine are fiction. No actual persons are designated by name or character. Any similarity is coincidental.

Astounding SCIENCE FICTION published monthly by Street & Smith Publications, Incorporated, at 575 Madison Avenue, New York 22, N. Y. Arthur Z. Gray, President; Ralph R. Whittaker, Jr., Executive Vice-President; Arthur P. Lawler, Vice-President and Secretary; Robert E. Park, Vice-President and Advertising Director; Thomas H. Kaiser, Treasurer.

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Second-class postage paid at New York, N. Y. Subscription $3.50 for one year and $6.00 for two years in the United States, Possessions and Canada; $4.75 for one year and $8.00 for two years in Pan American Union, Philippine Islands and Spain. Elsewhere $5.00 for one year and $8.50 for two years. When possible allow four weeks for change of address. Give old address and new address when notifying us. We cannot accept responsibility for unsolicited manuscripts or art work. Any material submitted must include return postage. All subscriptions should be addressed to Subscription Department, Street & Smith Publications, Incorporated, 304 East 45th Street, New York 17, New York.

Send notice of undelivered copies on Form 3579 to: Astounding Science Fiction, McCall Street, Dayton 1, Ohio.

Printed in the U. S. A.

NEXT ISSUE ON SALE
DECEMBER 16, 1958

$3.50 per Year in U. S. A.
35 cents per Copy

EDITORIAL

POLITICAL SCIENCE

THE last time a professional Political Scientist was Chief Executive of the United States, the results were unfortunate. Professional Political Scientists do not seem to have made a great impress on the political situation of the world. And it is quite generally agreed that Politicians—who seldom claim to be political scientists—haven't done too well with the problems. That, at least, there is something to be desired.

Some eight years ago, my wife and I started a private project, with a coin bracelet as its symbol and reminder. The bracelet is simply a gold chain, with a series of gold coins dangling from it.

Each coin, however, "was there" at the height of one of Man's great, historic empires—when the Empire was at its peak, and the people of the mighty nation knew that they had reached the highest point Man had ever known; that they had the world by the tail . . .

There's a coin of Alexander the Great, for instance, and one of Cæsar Augustus. Augustus' coin shows an aurochs on the reverse; the artisan that carved the die from which that coin was struck had seen the aurochs in the Arena. Today, of course, the aurochs—and the Roman Empire—are extinct.

There's a coin of Justinian, and one of Venice, the first of the commercial empires. And Ferdinand and Isabella.

And one of Victoria Regina.

Every Empire Man has ever built could be there. The Incas had no coins; Crœsus was the first King to mint coins-as-we-know-them, so the Babylonians and Egyptians, who preceded him by some millennia, did not have coins.

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the question, "What—besides collapse—did these Empires have in common?" It started as a good science-fiction question; there should be some powerful stories in that material!

Turns out there is. But it isn't, of course, fiction . . . and it isn't quite so remote as it seemed.

Let's look at a series of individual items, no one of which "proves" anything, but which, together, seem to make a pattern.

I. To map any territory, it is necessary that the mapping "surface" have the same fundamental characteristics—topologically—as the territory being mapped. You cannot map a sphere onto a plane, nor can you map a sphere onto a doughnut; the plane and the doughnut both possess topological characteristics alien to the sphere.

Then if a territory can be mapped successfully onto a given surface, it's evidence that the given surface must have the fundamental features of the territory.

This doesn't mean that distortion may not be introduced; you can map a sphere onto an egg, for while there may be distortions, the surface is not torn in the process.

Now Logic is, in essence, a kind of mapping "surface"; we can "map" the world around us onto a logical context, and by studying the logical map, determine relationships which prove valid in the real world.

Science is based on that fact; if logic were not an excellent mapping "surface" for the physical world, Science would not be able to progress as it has.

Here, however, is where the anguished shrieks will start. We can invert that proposition; the fundamental properties of physical reality must be reflected in the fundamental characteristics of logic—and one of the dominant, overriding and inescapable characteristics of physical systems is Entropy—the tendency of any and all physical systems to level out into a situation of no-difference. The "heat death" of the Universe is postulated on that great principle of Entropy.

If Logic is a true map of the physical universe—and Science says it is! *—then any logical system must degenerate inescapably to pure entropy. Any and all logical systems!*

Ib. History shows that Man's empires have wound up either in anarchy and chaos, or in a rigid traditionalism.

Tradition is not logical; ritual and taboo cultures are nonlogical, and nonthinking. One does X because Ritual requires it; one never does Y because it is taboo. The answer to all questions is, "Because it Is."

Traditionalism does not lead to degeneracy, because it is nonlogical, it does not, therefore, have the logical characteristic of entropy.

But all logical empires have, with perfect regularity, degenerated to the closest approach to pure entropy that the world-situation of the time would permit.

Now the essence of entropy is

that there can be an immense amount of energy present—but while the energy is not zero, the *available* energy is. In a universe filled with gas at 1000°, there is no *available* heat-energy. Entropy is the measure of no-useful-difference. When every atom of gas has the same effective energy level, there is no useful difference, and no detectable energy-flow is possible. Things don't come to a halt; it is just that in a situation of perfectly uniform equality, no change can have meaning.

In a culture in which entropy is dominant, the tendency is toward no-difference.

Marx observed with perfect accuracy; the only trouble with him was that he misinterpreted what he observed. He was perfectly correct in saying that "historical necessity" showed that the Dictatorship of the Proletariat would come, and that it would be followed by the development of a Classless Society. His observations were valid; his slight mistake was in considering that a desirable situation!

Every one of Man's Logical Empires, without exception, has followed the nature of Logic to its bitter, meaningless end—the cultural entropy of Anarchy and Chaos. Anarchy is, after all, the only truly logical government!

The Dictatorship of the Proletariat occurs in an empire as Logic becomes powerfully dominant over the non-logical factor men call Judgment. The Classless Society is the consequence of applying the idiot formulas of pure logic.

The essential idiocy of pure logic is expressed in the familiar "I've got as much right to my opinion as you have to yours!" That is a logically undecidable proposition. William of Occam, long ago, proposed what is known as "Occam's Razor," because there is no logical means for distinguishing values. In essence, "Of two logically self-consistent systems, each of which concerns the same set of data, pick the simpler."

The experimental fact—and experiments, remember, are not logic; they're pragmatic—is that I do *not* have as much right to my opinion as you have to yours—if yours works and mine doesn't! But that is not a *logical* method of distinguishing!

II. There isn't room for a full probability-analysis of this mechanism; the following highly skeletonized brief of it will, however, allow you to develop the concept yourself. And this skeleton needs a lot of fleshing out; agreed in full!

First, consider a jury made up of *n* individuals, each of whom guesses right eighty per cent of the time, on problems presented to him. If we take a majority vote of the jury, the Group will guess right one hundred per cent of the time. Simple mathematics makes that inescapably necessary. And this does *not* depend on any trick definition of "right," either; use the same definition of "right" for evaluating the guesses of the indi-

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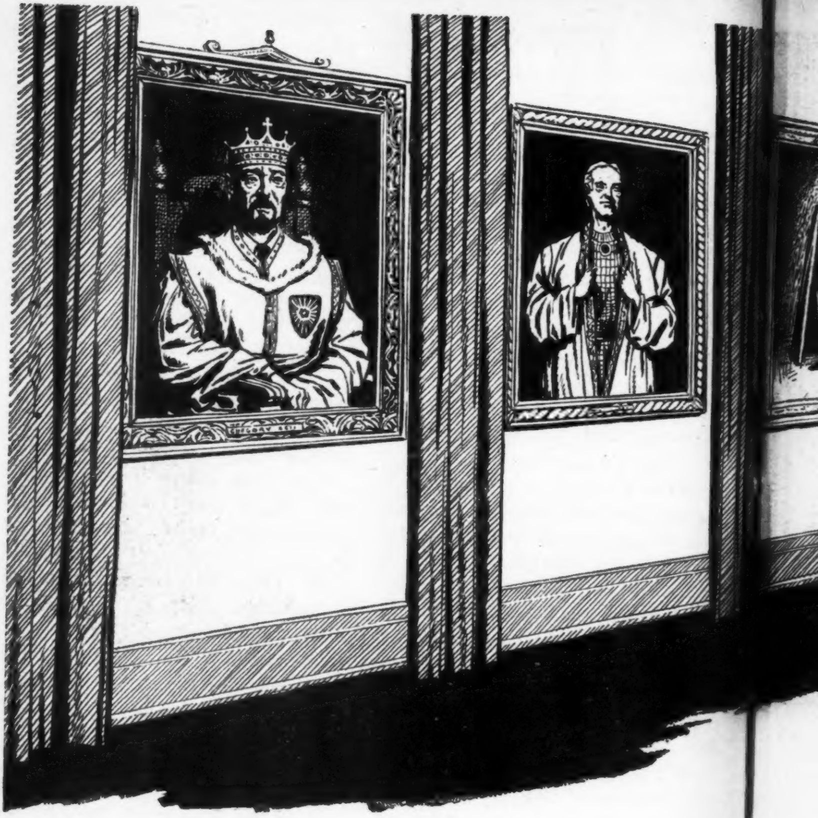

MINISTRY O

BY H. BEAM PIPER

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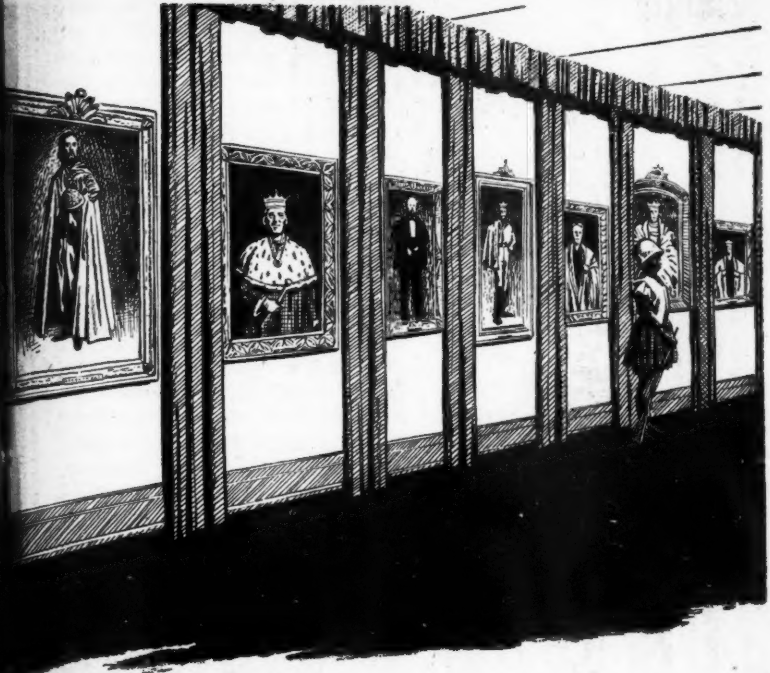
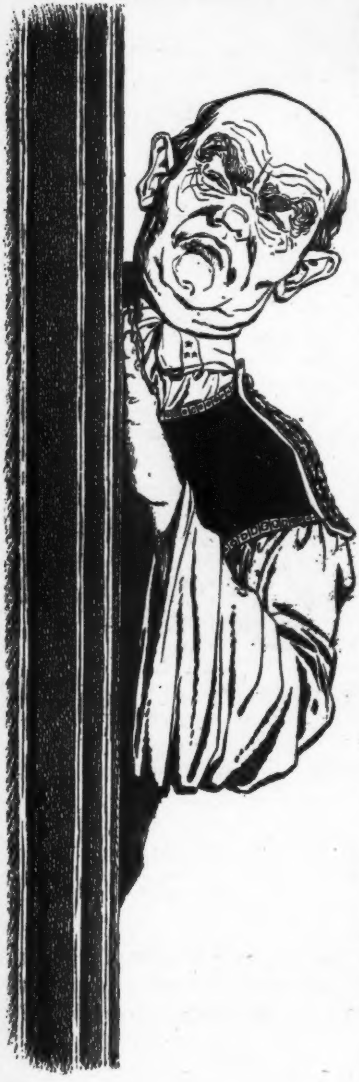


OF DISTURBANCE

Sometimes getting a job is harder than the job after you get it—and sometimes getting out of a job is harder than either!



THE symphony was ending, the final triumphant pæan soaring up and up, beyond the limit of audibility. For a moment, after the last notes had gone away, Paul sat motionless, as though some part of him had followed. Then he roused himself and finished his coffee and cigarette, looking out the wide window across the city below — treetops and towers, roofs and domes and arching skyways, busy swarms of aircars glinting in the early sunlight. Not many people cared for João Coelho's music, now, and least of all for the Eighth Symphony. It was the music of another time, a thousand years ago, when the Empire was blazing into being out of the long night and hammering back the Neobarbarians from world after world. Today people found it perturbing.

He smiled faintly at the vacant chair opposite him, and lit another cigarette before putting the breakfast dishes on the serving-robot's tray, and, after a while, realized that the robot was still beside his chair, waiting for dismissal. He gave it an instruction to summon the cleaning robots and sent it away. He could as easily have summoned them himself, or let the guards who would be in checking the room do it for him, but maybe it made a robot feel trusted and important to relay orders to other robots.

Then he smiled again, this time in self-derision. A robot couldn't feel important, or anything else. A robot was nothing but steel and plastic and magnetized tape and photo-micro-positronic circuits, whereas a man—His Imperial Majesty Paul XXII, for instance—was nothing but tissues and cells and colloids and electro-neuronic circuits. There was a difference; anybody knew that. The trouble was that he had never met anybody—which included physicists, biologists, psychologists, psionicists, philosophers and theologians—who could define the difference in satisfactorily exact terms. He watched the robot pivot on its treads and glide away, trailing steam from its coffee pot. It might be silly to treat robots like people, but that wasn't as bad as treating people like robots, an attitude which was becoming entirely too prevalent. If only so many people didn't act like robots!

He crossed to the elevator and stood in front of it until a tiny electroencephalograph inside recognized his distinctive brain-wave pattern. Across the room, another door was popping open in response to the robot's distinctive wave pattern. He stepped inside and flipped a switch—there were still a few things around that had to be manually operated—and the door closed behind him and the elevator gave him an instant's weightlessness as it started to drop forty floors.

When it opened, Captain-General Dorflay oi the Household Guard was waiting for him, with a captain and ten privates. General Dorflay was human. The captain and his ten soldiers weren't. They wore helmets, emblazoned with the golden sun and superimposed black cogwheel of the Empire, and red kilts and black ankle boots and weapons belts, and the captain had a narrow gold-laced cape over his shoulders, but for the rest, their bodies were covered with a stiff mat of black hair, and their faces were slightly like terriers'. (For all his humanity, Captain-General Dorflay's face was more like a bulldog's.) They were hillmen from the southern hemisphere of Thor, and as a people they made excellent mercenaries. They were crack shots, brave and crafty fighters, totally uninterested in politics off their own planet, and, because they had grown up in a patriarchial-clan society, they were fanatically loyal to anybody whom they accepted as their chieftain. Paul stepped out and gave them an inclusive nod.

"Good morning, gentlemen."

"Good morning, Your Imperial Majesty," General Dorflay said, bowing the couple of inches consistent with military dignity. The Thoran captain saluted by touching his forehead, his heart, which was on the right side, and the butt of his pistol. Paul complimented him on the smart appearance of his detail, and the captain asked how it could be otherwise, with the example and inspiration of his imperial majesty. Compliment and response could have been a playback from every morning of the ten years of his reign. So could Dorflay's question: "Your Majesty will proceed to his study?"

He wanted to say, "No, to Niffelheim with it; let's get an aircar and fly a million miles somewhere," and watch the look of shocked incomprehension on the captain-general's face. He couldn't do that, though; poor old Harv Dorflay might have a heart attack. He nodded slowly.

"If you please, general."

Dorflay nodded to the Thoran captain, who nodded to his men. Four of them took two paces forward; the rest, unslinging weapons, went scurrying up the corridor, some posting themselves along the way and the rest continuing to the main hallway. The captain and two of his men started forward slowly; after they had gone twenty feet, Paul and General Dorflay fell in behind them, and the other two brought up the rear.

"Your Majesty," Dorflay said, in a low voice, "let me beg you to be most cautious. I have just discovered that there exists a treasonous plot against your life."

Paul nodded. Dorflay was more than due to discover another treasonous plot; it had been ten days since the last one.

"I believe you mentioned it, general. Something about planting loose strontium-90 in the upholstery of the Audience Throne, wasn't it?"

And before that, somebody had been trying to smuggle a fission bomb into the Palace in a wine cask, and before that, it was a booby trap in the elevator, and before that, somebody was planning to build a submachine gun into the viewscreen in the study, and—

"Oh, no, Your Majesty; that was— Well, the persons involved in that plot became alarmed and fled the planet before I could arrest them. This is something different, Your Majesty. I have learned that unauthorized alterations have been made on one of the cooking-robots in your private kitchen, and I am positive that the object is to poison Your Majesty."

They were turning into the main hallway, between the rows of portraits of past emperors, Paul and Rodrik, Paul and Rodrik, alternating over and over on both walls. He felt a smile growing on his face, and banished it.

"The robot for the meat sauces, wasn't it?" he asked.

"Why—! Yes, Your Majesty."

"I'm sorry, general. I should have warned you. Those alterations were made by roboticists from the Ministry of Security; they were installing an adaptation of a device used in the criminalistics-labs, to insure more uniform measurements. They'd done that already for Prince Travann, the Minister, and he'd recommended it to me."

That was a shame, spoiling poor Harv Dorflay's murder plot. It had been such a nice little plot, too; he must have had a lot of fun inventing it. But a line had to be drawn somewhere. Let him turn the Palace upside down hunting for bombs; harass ladies-in-waiting whose lovers he suspected of being hired assassins; hound musicians into whose instruments he imagined firearms had been built; the emperor's private kitchen would have to be off limits.

Dorflay, who should have been looking crestfallen but relieved, stopped short—shocking breach of Court etiquette—and was staring in horror.

"Your Majesty! Prince Travann did that openly and with your consent? But, Your Majesty, I am convinced that it is Prince Travann himself who is the instigator of every one of these diabolical schemes. In the case of the elevator, I became suspicious of a man named Samml Ganner, one of Prince Travann's secret police agents. In the case of the gun in the viewscreen, it was a technician whose sister is a member of the household of Countess Yirzy, Prince Travann's mistress. In the case of the fission bomb—"

The two Thorans and their captain had kept on for some distance before they had discovered that they were no longer being followed, and were returning. He put his hand on General Dorflay's shoulder and urged him forward.

"Have you mentioned this to anybody?"

"Not a word, Your Majesty. This Court is so full of treachery that I can trust no one, and we must never warn the villain that he is suspected—"

"Good. Say nothing to anybody." They had reached the door of the study, now. "I think I'll be here until noon. If I leave earlier, I'll flash you a signal."

He entered the big oval room, lighted from overhead by the great star-map in the ceiling, and crossed to his desk, with the viewscreens and reading screens and communications screens around it, and as he sat down, he cursed angrily, first at Harv Dorflay and then, after a moment's reflection, at himself. He was the one to blame; he'd known Dorflay's paranoid condition for years. Have to do something about it. Any psycho-medic would certify him; be no problem at all to have him put away. But be blasted if he'd do that. That was no way to repay loyalty, even insane loyalty. Well, he'd find a way.

He lit a cigarette and leaned back, looking up at the glowing swirl of billions of billions of tiny lights in the ceiling. At least, there were supposed to be billions of billions of them; he'd never counted them, and neither had any of the seventeen Rodriks and sixteen Pauls before him who had sat under them. His hand moved to a control button on his chair arm, and a red patch, roughly the shape of a pork chop, appeared on the western side.

That was the Empire. Every one of the thousand three hundred and sixty-five inhabited worlds, a trillion and a half intelligent beings, fourteen races—fifteen if you counted the Zarathustran Fuzzies, who were almost able to qualify under the talk-and-build-a-fire rule. And that had been the Empire when Rodrik VI had seen the map completed, and when Paul II had built the Palace, and when Stevan IV, the grandfather of Paul I, had proclaimed Odin the Imperial planet and Asgard the capital city. There had been some excuse for staying inside that patch of stars then; a newly won Empire must be consolidated within before it can safely be expanded. But that had been over eight centuries ago.

He looked at the Daily Schedule, beautifully embossed and neatly slipped under his desk glass. Luncheon on the South Upper Terrace, with the Prime Minister and the Bench of Imperial Counselors. Yes, it was time for that again; that happened as inevitably and regularly as Harv Dorflay's murder plots. And in the afternoon, a Plenary Session, Cabinet and Counselors. Was he going to have to endure the Bench of Counselors twice in the same day? Then the vexation was washed out of his face by a spreading grin. Bench of Counselors; that was the answer! Elevate Harv Dorflay to the Bench. That was what the Bench was for, a gold-plated dustbin for the disposal of superannuated dignitaries. He'd do no harm there, and a touch of outright lunacy might enliven and even improve the Bench.

And in the evening, a banquet, and a reception and ball, in honor of His Majesty Ranulf XIV, Planetary King of Durendal, and First Citizen Zhorzh Yaggo, People's Manager-in-Chief of and for the Planetary Commonwealth of Aditya. Bargain day; two planetary chiefs of state in one big combination deal. He wondered what sort of prizes he had drawn this time, and closed his eyes, trying to remember. Durendal, of course, was one of the Sword-Worlds, settled by refugees from the losing side of the System States War in the time of the old Terran Federation, who had reappeared in Galactic history a few centuries later as the Space Vikings. They all had monarchial and rather picturesque governments; Durendal, he seemed to recall, was a sort of quasi-feudalism. About Aditya he was less sure. Something unpleasant, he thought; the titles of the government and its head were suggestive.

He lit another cigarette and snapped on the reading screen to see what they had piled onto him this morning, and then swore when a graph chart, with jiggling red and blue and green lines, appeared. Chart day, too. Everything happens at once.

It was the interstellar trade situation chart from Economics. Red line for production, green line for exports, blue for imports, sectioned vertically for the ten Viceroyalties and subsectioned for the Prefectures, and with the magnification and focus controls he could even get data for individual planets. He didn't bother with that, and wondered why he bothered with the charts at all. The stuff was all at least twenty days behind date, and not uniformly so, which accounted for much of the jiggling. It had been transmitted from Planetary Proconsulate to Prefecture, and from Prefecture to Viceroyalty, and from there to Odin, all by ship. A ship on hyperdrive could log light-years an hour, but radio waves still had to travel 186,000 mps. The supplementary chart for the past five centuries told the real story—three perfectly level and perfectly parallel lines.

It was the same on all the other charts. Population fluctuating slightly at the moment, completely static for the past five centuries. A slight decrease in agriculture, matched by an increase in synthetic food production. A slight population movement toward the more urban planets and the more densely populated centers. A trend downward in employment — nonworking population increasing by about .0001 per cent annually. Not that they were building better robots; they were just building them faster than they wore out. They all told the same story — a stable economy, a static population, a peaceful and undisturbed Empire; eight centuries, five at least, of historyless tranquility. Well, that was what everybody wanted, wasn't it?

He flipped through the rest of the charts, and began getting summarized Ministry reports. Economics had denied a request from the Mining Cartel to authorize operations on a couple of uninhabited planets; danger of local market gluts and overstimulation of manufacturing. Permission granted to Robotics Cartel to— Request from planetary government of Durendal for increase of cereal export quotas under consideration—they wouldn't want to turn that down while King Ranulf was here. Impulsively, he punched out a combination on the communication screen and got Count Duklass, Minister of Economics.

Count Duklass had thinning red hair and a plump, agreeable, extrovert's face. He smiled and waited to be addressed.

"Sorry to bother Your Lordship," Paul greeted him. "What's the story on this export quota request from Durendal? We have their king here, now. Think he's come to lobby for it?"

Count Duklass chuckled. "He's not doing anything about it, himself. Have you met him yet, sir?"

"Not yet. He's to be presented this evening."

"Well, when you see him—I think the masculine pronoun is permissible —you'll see what I mean, sir. It's this Lord Koreff, the Marshal. He came here on business, and had to bring the king along, for fear somebody else would grab him while he was gone. The whole object of Durendalian politics, as I understand, is to get possession of the person of the king. Koreff was on my screen for half an hour; I just got rid of him. Planet's pretty heavily agricultural, they had a couple of very good crop years in a row, and now they have grain running out their ears, and they want to export it and cash in."

"Well?"

"Can't let them do it, Your Majesty. They're not suffering any hardship; they're just not making as much money as they think they ought to. If they start dumping their surplus into interstellar trade, they'll cause all kinds of dislocations on other agricultural planets. At least, that's what our computers all say."

And that, of course, was gospel. He nodded

"Why don't they turn their surplus into whisky? Age it five or six years and it'd be on the luxury goods schedule and they could sell it anywhere."

Count Duklass' eyes widened. "I never thought of that, Your Majesty. Just a microsec; I want to make a note of that. Pass it down to somebody who could deal with it. That's a wonderful idea, Your Majesty!"

He finally got the conversation to an end, and went back to the reports. Security, as usual, had a few items above the dead level of bureaucratic procedure. The planetary king of Excalibur had been assassinated by his brother and two nephews, all three of whom were now fighting among themselves. As nobody had anything to fight with except small arms and a few light cannon, there would be no intervention. There had been intervention on Behemoth, however, where a whole continent had tried to secede from the planetary republic and the Imperial Navy had been requested to send a task force. That was all right, in both cases. No interference with anything that passed for a planetary government, but only one sovereignty on any planet with nuclear weapons, and only one supreme sovereignty in a galaxy with hyperdrive ships.

And there was rioting on Amaterasu, because of public indignation over a fraudulent election. He looked at that in incredulous delight. Why, here on Odin there hadn't been an election in the past six centuries that hadn't been utterly fraudulent. Nobody voted except the nonworkers, whose votes were bought and sold wholesale, by gangster bosses to pressure groups, and no decent person would be caught within a hundred yards of a polling place on an election day. He called the Minister of Security.

Prince Travann was a man of his own age—they had been classmates at the University—but he looked older. His thin face was lined, and his hair was almost completely white. He was at his desk, with the Sun and Cogwheel of the Empire on the wall behind him, but on the breast of his black tunic he wore the badge of his family, a silver planet with three silver moons. Unlike Count Duklass, he didn't wait to be spoken to.

"Good morning, Your Majesty."

"Good morning, Your Highness; sorry to bother you. I just caught an interesting item in your report. This business on Amaterasu. What sort of a planet is it, politically? I don't seem to recall."

"Why, they have a republican government, sir; a very complicated setup. Really, it's a junk heap. When anything goes badly, they always build something new into the government, but they never abolish anything. They have a president, a premier, and an executive cabinet, and a tricameral legislature, and two complete and distinct judiciaries. The premier is always the presidential candidate getting the next highest number of votes. In the present instance, the president, who controls the planetary militia, is accusing the premier, who controls the police, of fraud in the election of the middle house of the legislature. Each is supported by the judiciary he controls. Practically every citizen belongs either to the militia or the police auxiliaries. I am looking forward to further reports from Amaterasu," he added dryly.

"I daresay they'll be interesting. Send them to me in full, and redstar them, if you please, Prince Travann."

He went back to the reports. The Ministry of Science and Technology had sent up a lengthy one. The only trouble with it was that everything reported was duplication of work that had been done centuries before. Well, no. A Dr. Dandrik, of the physics department of the Imperial University here in Asgard announced that a definite limit of accuracy in measuring the velocity of accelerated subnucleonic particles had been established—16.067543333 — times light-speed. That seemed to be typical; the frontiers of science, now, were all decimal points. The Ministry of Education had a little to offer; historical scholarship was still active, at least. He was reading about a new trove of source-material that had come to light on Uller, from the Sixth Century Atomic Era, when the door screen buzzed and flashed.

He lit it, and his son Rodrik appeared in it, with Snooks, the little red hound, squirming excitedly in the Crown Prince's arms. The dog began barking at once, and the boy called through the phone:

"Good morning, father; are you busy?"

"Oh, not at all." He pressed the release button. "Come on in."

Immediately, the little hound leaped out of the princely arms and came dashing into the study and around the desk, jumping onto his lap. The boy followed more slowly, sitting down in the deskside chair and drawing his foot up under him. Paul greeted Snooks first—people can wait, but for little dogs everything has to be right now—and rummaged in a drawer until he found some wafers, holding one for Snooks to nibble. Then he became aware that his son was wearing leather shorts and tall buskins.

"Going out somewhere?" he asked, a trifle enviously.

"Up in the mountains, for a picnic. Olva's going along."

And his tutor, and his esquire, and Olva's companion-lady, and a dozen Thoran riflemen, of course, and they'd be in continuous screen-contact with the Palace.

"That ought to be a lot of fun. Did you get all your lessons done?"

"Physics and math and galactiography," Rodrik told him. "And Professor Guilsan's going to give me and Olva our history after lunch."

They talked about lessons, and about the picnic. Of course, Snooks was going on the picnic, too. It was evident, though, that Rodrik had something else on his mind. After a while, he came out with it.

"Father, you know I've been a little afraid, lately," he said.

"Well, tell me about it, son. It isn't anything about you and Olva, is it?"

Rod was fourteen; the little Princess Olva thirteen. They would be marriageable in six years. As far as anybody could tell, they were both quite happy about the marriage which had been arranged for them years ago.

"Oh, no; nothing like that. But Olva's sister and a couple others of mother's ladies-in-waiting were to a psi-medium, and the medium told them that there were going to be changes. Great and frightening changes was what she said."

"She didn't specify?"

"No. Just that: great and frightening changes. But the only change of that kind I can think of would be . . . well, something happening to you."

Snooks, having eaten three wafers, was trying to lick his ear. He pushed the little dog back into his lap and pummeled him gently with his left hand.

"You mustn't let mediums' gabble worry you, son. These psi-mediums have real powers, but they can't turn them off and on like a water tap. When they don't get anything, they don't like to admit it, and they invent things. Always generalities like that; never anything specific."

"I know all that." The boy seemed offended, as though somebody were explaining that his mother hadn't really found him out in the rose garden. "But they talked about it to some of their friends, and it seems that other mediums are saying the same thing. Father, do you remember when the Haval Valley reactor blew up? All over Odin, the mediums had been talking about a terrible accident, for a month before that happened."

"I remember that." Harv Dorflay believed that somebody had been falsely informed that the emperor would visit the plant that day. "These great and frightening changes will probably turn out to be a new fad in abstract sculpture. Any change frightens most people."

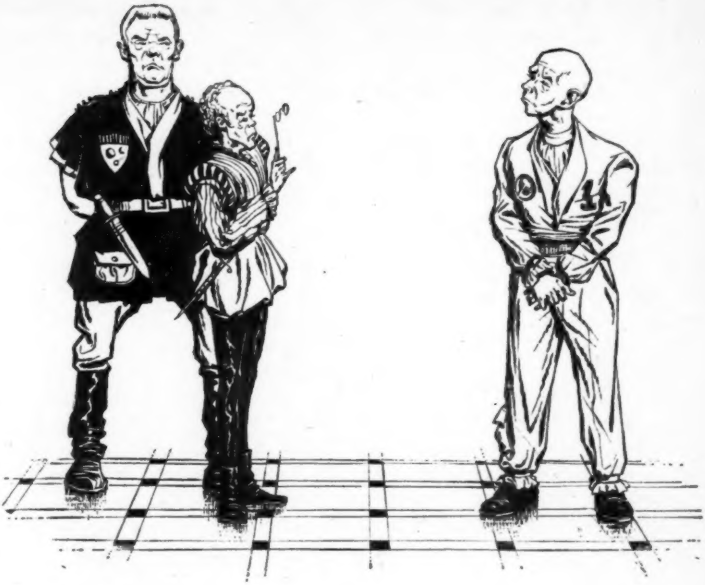
They talked more about mediums, and then about aircars and aircar racing, and about the Emperor's Cup race that was to be flown in a month. The communications screen began flashing and buzzing, and after he had silenced it with the busy-button for the third time, Rodrik said that it was time for him to go, came around to gather up Snooks, and went out, saying that he'd be home in time for the banquet. The screen began to flash again as he went out.

It was Prince Ganzay, the Prime Minister. He looked as though he had a persistent low-level toothache, but that was his ordinary expression.

"Sorry to bother Your Majesty. It's about these chiefs-of-state. Count Gadvan, the Chamberlain, appealed to me, and I feel I should ask your advice. It's the matter of precedence."

"Well, we have a fixed rule on that. Which one arrived first?"

"Why, the Adityan, but it seems King Ranulf insists that he's entitled



to precedence, or, rather, his Lord Marshal does. This Lord Koreff insists that his king is not going to yield precedence to a commoner."

"Then he can go home to Durendal!" He felt himself growing angry—all the little angers of the morning were focusing on one spot. He forced the harshness out of his voice. "At a court function, somebody has to go first, and our rule is order of arrival at the Palace. That rule was established to avoid violating the principle of equality to all civilized peoples and all planetary governments. We're not going to set it aside for the King of Durendal, or anybody else."

Prince Ganzay nodded. Some of the toothache expression had gone out of his face, now that he had been relieved of the decision.

"Of course, Your Majesty." He brightened a little. "Do you think we might compromise? Alternate the precedence, I mean?"

"Only if this First Citizen Yaggo consents. If he does, it would be a good idea."

"I'll talk to him, sir." The toothache expression came back. "Another thing, Your Majesty. They've both been invited to attend the Plenary Session, this afternoon."

"Well, no trouble there; they can

enter by different doors and sit in visitors' boxes at opposite ends of the hall."

"Well, sir, I wasn't thinking of precedence. But this is to be an Elective Session—new Ministers to replace Prince Havaly, of Defense, deceased, and Count Frask, of Science and Technology, elevated to the Bench. There seems to be some difference of opinion among some of the Ministers and Counselors. It's very possible that the Session may degenerate into an outright controversy."

"Horrible," Paul said seriously. "I think, though, that our distinguished guests will see that the Empire can survive difference of opinion, and even outright controversy. But if you think it might have a bad effect, why not postpone the election?"

"Well— It's been postponed three times, already, sir."

"Postpone it permanently. Advertise for bids on two robot Ministers, Defense, and Science and Technology. If they're a success, we can set up a project to design a robot emperor."

The Prime Minister's face actually twitched and blanched at the blasphemy. "Your Majesty is joking," he said, as though he wanted to be reassured on the point.

"Unfortunately, I am. If my job could be robotized, maybe I could take my wife and my son and our little dog and go fishing for a while."

But, of course, he couldn't. There were only two alternatives: the Empire or Galactic anarchy. The galaxy was too big to hold general elections, and there had to be a supreme ruler, and a positive and automatic—which meant hereditary—means of succession.

"Whose opinion seems to differ from whose, and about what?" he asked.

"Well, Count Duklass and Count Tammsan want to have the Ministry of Science and Technology abolished, and its functions and personnel distributed. Count Duklass means to take over the technological sections under Economics, and Count Tammsan will take over the science part under Education. The proposal is going to be introduced at this Session by Count Guilfred, the Minister of Health and Sanity. He hopes to get some of the bio- and psycho-science sections for his own Ministry."

"That's right. Duklass gets the hide, Tammsan gets the head and horns, and everybody who hunts with them gets a cut of the meat. That's good sound law of the chase. I'm not in favor of it, myself. Prince Ganzay at this session, I wish you'd get Captain-General Dorflay nominated for the Bench. I feel that it is about time to honor him with elevation."

"General Dorflay? But why, Your Majesty?"

"Great galaxy, do you have to ask? Why, because the man's a raving lunatic. He oughtn't even to be trusted with a sidearm, let alone five companies of armed soldiers. Do you know what he told me this morning?"

"That somebody is training a Nidhog swamp-crawler to crawl up the

Octagon Tower and bite you at breakfast, I suppose. But hasn't that been going on for quite a while, sir?"

"It was a gimmick in one of the cooking robots, but that's aside from the question. He's finally named the master mind behind all these nightmares of his, and who do you think it is? Yorn Travann!"

The Prime Minister's face grew graver than usual. Well, it was something to look grave about; some of these days—

"Your Majesty, I couldn't possibly agree more about the general's mental condition, but I really should say that, crazy or not, he is not alone in his suspicions of Prince Travann. If sharing them makes me a lunatic, too, so be it, but share them I do."

Paul felt his eyebrows lift in surprise. "That's quite too much and too little, Prince Ganzay," he said.

"With your permission, I'll elaborate. Don't think that I suspect Prince Travann of any childish pranks with elevators or viewscreens or cooking-robots," the Prime Minister hastened to disclaim, "but I definitely do suspect him of treasonous ambitions. I suppose Your Majesty knows that he is the first Minister of Security in centuries who has assumed personal control of both the planetary and municipal police, instead of delegating his *ex officio* powers.

"Your Majesty may not know, however, of some of the peculiar uses he has been making of those authorities. Does Your Majesty know that he has recruited the Security Guard up to at least ten times the strength needed to meet any conceivable peace-maintenance problem on this planet, and that he has been piling up huge quantities of heavy combat equipment —guns up to 200-millimeter, heavy contragravity, even gun-cutters and bomb-and-rocket boats? And does Your Majesty know that most of this armament is massed within fifteen minutes' flight-time of this Palace? Or that Prince Travann has at his disposal from two and a half to three times, in men and firepower, the combined strength of the Planetary Militia and the Imperial Army on this planet?"

"I know. It has my approval. He's trying to salvage some of the young nonworkers through exposing them to military discipline. A good many of them, I believe, have gone off-planet on their discharge from the SG and hired as mercenaries, which is a far better profession than vote-selling."

"Quite a plausible explanation; Prince Travann is nothing if not plausible," the Prime Minister agreed. "And does Your Majesty know that, because of repeated demands for support from the Ministry of Security, the Imperial Navy has been scattered all over the Empire, and that there is not a naval craft bigger than a scout-boat within fifteen hundred light-years of Odin?"

That was absolutely true. Paul could only nod agreement. Prince Ganzay continued:

"He has been doing some peculiar things as Police Chief of Asgard, too.

For instance, there are two powerful nonworkers' voting-bloc bosses, Big Moogie Blisko and Zikko the Nose—I assure Your Majesty that I am not inventing these names; that's what the persons are actually called—who have been enjoying the favor and support of Prince Travann. On a number of occasions, their smaller rivals, leaders of less important gangs, have been arrested, often on trumped-up charges, and held incommunicado until either Moogie or Zikko could move into their territories and annex their nonworker followers. These two bloc-bosses are subsidized, respectively, by the Steel and Shipbuilding Cartels and by the Reaction Products and Chemical Cartels, but actually, they are controlled by Prince Travann. They, in turn, control between them about seventy per cent of the nonworkers in Asgard."

"And you think this adds up to a plot against the Throne?"

"A plot to seize the Throne, Your Majesty."

"Oh, come, Prince Ganzay! You're talking like Dorflay!"

"Hear me out, Your Majesty. His Imperial Highness is fourteen years old; it will be eleven years before he will be legally able to assume the powers of emperor. In the dreadful event of your immediate death, it would mean a regency for that long. Of course, your Ministers and Counselors would be the ones to name the Regent, but I know how they would vote with Security Guard bayonets at their throats. And regency might not be the limit of Prince Travann's ambitions."

"In your own words, quite plausible, Prince Ganzay. It rests, however, on a very questionable foundation. The assumption that Prince Travann is stupid enough to want the Throne."

He had to terminate the conversation himself and blank the screen. Viktor Ganzay was still staring at him in shocked incredulity when his image vanished. Viktor Ganzay could not imagine anybody not wanting the Throne, not even the man who had to sit on it.

He sat, for a while, looking at the darkened screen, a little worried. Viktor Ganzay had a much better intelligence service than he had believed. He wondered how much Ganzay had found out that he hadn't mentioned. Then he went back to the reports. He had gotten down to the Ministry of Fine Arts when the communications screen began calling attention to itself again.

When he flipped the switch, a woman smiled out of it at him. Her blond hair was rumpled, and she wore a dressing gown; her smile brightened as his face appeared in her screen.

"Hi!" she greeted him.

"Hi, yourself. You just get up?"

She raised a hand to cover a yawn. "I'll bet you've been up reigning for hours. Were Rod and Snooks in to see you yet?"

He nodded. "They just left. Rod's going on a picnic with Olva in the mountains." How long had it been since he and Marris had been on a picnic—a real picnic, with less than fifty guards and as many courtiers along? "Do you have much reigning to do, this afternoon?"

She grimaced. "Flower Festivals. I have to make personal tri-di appearances, live, with messages for the loving subjects. Three minutes on, and a two-minute break between. I have forty for this afternoon."

"Ugh! Well, have a good time, sweetheart. All I have is lunch with the Bench, and then this Plenary Session." He told her about Ganzay's fear of outright controversy.

"Oh, fun! Maybe somebody'll pull somebody's whiskers, or something. I'm in on that, too."

The call-indicator in front of him began glowing with the code-symbol of the Minister of Security.

"We can always hope, can't we? Well, Yorn Travann's trying to get me, now."

"Don't keep him waiting. Maybe I can see you before the Session. She made a kissing motion with her lips at him, and blanked the screen.

He flipped the switch again, and Prince Travann was on the screen. The Security Minister didn't waste time being sorry to bother him.

"Your Majesty, a report's just come in that there's a serious riot at the University; between five and ten thousand students are attacking the Administration Center, lobbing stench bombs into it, and threatening to hang Chancellor Khane. They have already overwhelmed and disarmed the campus police, and I've sent two companies of the Gendarme riot brigade, under an officer I can trust to handle things firmly but intelligently. We don't want any indiscriminate stunning or tear-gassing or shooting; all sorts of people can have sons and daughters mixed up in a student riot."

"Yes. I seem to recall student riots in which the sons of his late Highness Prince Travann and his late Majesty Rodrik XXI were involved." He deliberated the point for a moment, and added: "This scarcely sounds like a frat-fight or a panty-raid, though. What seems to have triggered it?"

"The story I got—a rather hysterical call for help from Khane himself—is that they're protesting an action of his in dismissing a faculty member. I have a couple of undercovers at the University, and I'm trying to contact them. I sent more undercovers, who could pass for students, ahead of the Gendarmes to get the student side of it and the names of the ringleaders." He glanced down at the indicator in front of him, which had begun to glow. "If you'll pardon me, sir, Count Tammsan's trying to get me. He may have particulars. I'll call Your Majesty back when I learn anything more."

There hadn't been anything like that at the University within the memory of the oldest old grad. Chancellor Khane, he knew, was a stupid and arrogant old windbag with a swollen sense of his own importance. He made a small bet with himself that the whole thing was Khane's fault, but he wondered what lay behind it, and what would come out of it. Great plagues from little microbes start. Great and frightening changes—

The screen got itself into an uproar, and he flipped the switch. It was Viktor Ganzay again. He looked as though his permanent toothache had deserted him for the moment.

"Sorry to bother Your Majesty, but it's all fixed up," he reported. "First Citizen Yaggo agreed to alternate in precedence with King Ranulf, and Lord Koreff has withdrawn all his objections. As far as I can see, at present, there should be no trouble."

"Fine. I suppose you heard about the excitement at the University?"

"Oh, yes, Your Majesty. Disgraceful affair!"

"Simply shocking. What seems to have started it, have you heard?" he asked. "All I know is that the students were protesting the dismissal of a faculty member. He must have been exceptionally popular, or else he got a more than ordinary raw deal from Khane."

"Well, as to that, sir, I can't say. All I learned was that it was the result of some faculty squabble in one of the science departments; the grounds for the dismissal were insubordination and contempt for authority."

"I always thought that when authority began inspiring contempt, it had stopped being authority. Did you say science? This isn't going to help Duklass and Tammsan any."

"I'm afraid not, Your Majesty." Ganzay didn't look particularly regretful. "The News Cartel's gotten hold of it and are using it; it'll be all over the Empire."

He said that as though it meant something. Well, maybe it did; a lot of Ministers and almost all the Counselors spent most of their time worrying about what people on planets like Chermosh and Zarathustra and Deirdre and Quetzalcoatl might think, in ignorance of the fact that interest in Empire politics varied inversely as the square of the distance to Odin and the level of corruption and inefficiency of the local government.

"I notice you'll be at the Bench luncheon. Do you think you could invite our guests, too? We could have an informal presentation before it starts. Can do? Good. I'll be seeing you there."

When the screen was blanked, he returned to the reports, ran them off hastily to make sure that nothing had been red-starred, and called a robot to clear the projector. After a while, Prince Travann called again.

"Sorry to bother Your Majesty, but I have most of the facts on the riot, now. What happened was that Chancellor Khane sacked a professor, physics department, under circumstances which aroused resentment among the science students. Some of them walked out of class and went to the stadium to hold a protest meeting, and the thing snowballed until half the students were in it. Khane lost his head and ordered the campus police to clear the stadium; the students rushed them and swamped them. I hope, for their sakes, that none of my men ever let anything like that happen. The man I sent, a Colonel Handrosan, managed to talk the students into going back to the stadium and continuing the meeting under Gendarme protection."

"Sounds like a good man."

"Very good, Your Majesty. Especially in handling disturbances. I have complete confidence in him. He's also investigating the background of the affair. I'll give Your Majesty what he's learned, to date. It seems that the head of the physics department, a Professor Nelse Dandrik, had been conducting an experiment, assisted by a Professor Klenn Faress, to establish more accurately the velocity of subnucleonic particles, beta micropositos, I believe. Dandrik's story, as relayed to Handrosan by Khane, is that he reached a limit and the apparatus began giving erratic results."

Prince Travann stopped to light a cigarette. "At this point, Professor Dandrik ordered the experiment stopped, and Professor Faress insisted on continuing. When Dandrik ordered the apparatus dismantled, Faress became rather emotional about it—obscenely abusive and threatening, according to Dandrik. Dandrik complained to Khane, Khane ordered Faress to apologize, Faress refused, and Khane dismissed Faress. Immediately, the students went on strike. Faress confirmed the whole story, and he added one small detail that Dandrik hadn't seen fit to mention. According to him, when these micropositos were accelerated beyond sixteen and a fraction times light-speed, they began registering at the target before the source registered the emission."

"Yes, I—*What did you say?*"

Prince Travann repeated it slowly, distinctly and tonelessly.

"That was what I thought you said. Well, I'm going to insist on a complete investigation, including a repetition of the experiment. Under direction of Professor Faress."

"Yes, Your Majesty. And when that happens, I mean to be on hand personally. If somebody is just before discovering time-travel, I think Security has a very substantial interest in it."

The Prime Minister called back to confirm that First Citizen Yaggo and King Ranulf would be at the luncheon. The Chamberlain, Count Gadvan, called with a long and dreary problem about the protocol for the banquet. Finally, at noon, he flashed a signal for General Dorflay, waited five minutes, and then left his desk and went out, to find the mad general and his wirehaired soldiers drawn up in the hall.

There were more Thorans on the South Upper Terrace, and after a flurry of porting and presenting and ordering arms and hand-saluting, the Prime Minister advanced and escorted him to where the Bench of Counselors, all thirty of them, total age close to twenty-eight hundred years, were drawn up in a rough crescent behind the three distinguished guests. The King of Durendal wore a cloth-of-silver leotard and pink tights, and a belt of gold links on which he carried a jeweled dagger only slightly thicker than a knitting needle. He was slender and willowy, and he had large and soulful eyes, and the royal beautician must have worked on him for a couple of hours. Wait till Marris sees this; oh, brother!

Koreff, the Lord Marshal, wore what was probably the standard costume of Durendal, a fairly long jerkin with short sleeves, and knee-boots, and his dress dagger looked as though it had been designed for use. Lord Koreff looked as though he would be quite willing and able to use it; he was fleshy and full-faced, with hard muscles under the flesh.

First Citizen Yaggo, People's Manager-in-Chief of and for the Planetary Commonwealth of Aditya, wore a one-piece white garment like a mechanic's coveralls, with the emblem of his government and the numeral 1 on his breast. He carried no dagger; if he had worn a dress weapon, it would probably have been a slide rule. His head was completely shaven, and he had small, pale eyes and a rat-trap mouth. He was regarding the Durendalians with a distaste that was all too evidently reciprocated.

King Ranulf appeared to have won the toss for first presentation. He squeezed the Imperial hand in both of his and looked up adoringly as he professed his deep honor and pleasure. Yaggo merely clasped both his hands in front of the emblem on his chest and raised them quickly to the level of his chin, saying: "At the service of the Imperial State," and adding, as though it hurt him, "Your Imperial Majesty." Not being a chief of state, Lord Koreff came third; he merely shook hands and said, "A great honor, Your Imperial Majesty, and the thanks, both of myself and my royal master, for a most gracious reception." The attempt to grab first place having failed, he was more than willing to forget the whole subject. There was a chance that finding a way to dispose of the grain surplus might make the difference between his staying in power at home or not.

Fortunately, the three guests had already met the Bench of Counselors. Immediately after the presentation of Lord Koreff, they all started the two hundred yards' march to the luncheon pavilion, the King of Durendal clinging to his left arm and First Citizen Yaggo stumping dourly on his right, with Prince Ganzay beyond him and Lord Koreff on Ranuf's left.

"Do you plan to stay long on Odin?" he asked the king.

"Oh, I'd *love* to stay for simply *months!* Everything is so *wonderful*, here in Asgard; it makes our little capital of Roncevaux seem so *utterly* provincial. I'm going to tell Your Imperial Majesty a secret. I'm going to see if I can lure some of your *wonderful* ballet dancers back to Durendal with me. Aren't I *naughty*, raiding Your Imperial Majesty's theaters?"

"In keeping with the traditions of your people," he replied gravely.

"You Sword-Worlders used to raid everywhere you went."

"I'm afraid those bad old days are long past, Your Imperial Majesty," Lord Koreff said. "But we Sword-Worlders got around the galaxy, for a while. In fact, I seem to remember reading that some of our brethren from Morglay or Flamberge even occupied Aditya for a couple of centuries. Not that you'd guess it to look at Aditya now."

It was First Citizen Yaggo's turn to take precedence—the seat on the right of the throne chair. Lord Koreff sat on Ranulf's left, and, to balance him, Prince Ganzay sat beyond Yaggo and dutifully began inquiring of the People's Manager-in-Chief about the structure of his government, launching him on a monologue that promised to last at least half the luncheon. That left the King of Durendal to Paul; for a start, he dropped a compliment on the cloth-of-silver leotard.

King Ranulf laughed dulcetly, brushed the garment with his fingertips, and said that it was just a simple thing patterned after the Durendalian peasant costume.

"You have peasants on Durendal?"

"Oh, *dear,* yes! Such quaint, *charming* people. Of course, they're all poor, and they wear such *funny* ragged clothes, and travel about in rackety old aircars, it's a wonder they don't fall apart in the air. But they're so *wonderfully* happy and carefree. I often wish I were one of them, instead of king."

"Nonworking class, Your Imperial Majesty," Lord Koreff explained.

"On Aditya," First Citizen Yaggo declared, "there are no classes, and on Aditya everybody works. 'From each according to his ability; to each according to his need.' "

"On Aditya," an elderly Counselor four places to the right of him said loudly to his neighbor, "they don't call them classes, they call them sociological categories, and they have nineteen of them. And on Aditya, they don't call them nonworkers, they call them occupational reservists, and they have more of them than we do."

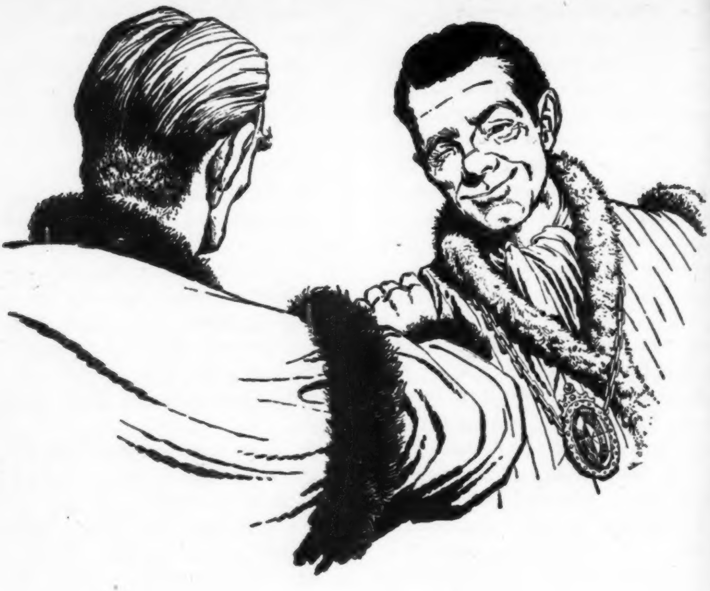
"But of course, I was born a king," Ranulf said sadly and nobly. "I have a duty to my people."

"No, they don't vote at all," Lord Koreff was telling the Counselor on his left. "On Durendal, you have to pay taxes before you can vote."

"On Aditya the crime of taxation does not exist," the First Citizen told the Prime Minister.

"On Aditya," the Counselor four places down said to his neighbor, "there's nothing to tax. The state owns all the property, and if the Imperial Constitution and the Space Navy let them, the State would own all the people, too. Don't tell me about Aditya. First big-ship command I had was the old *Invictus,* 374, and she was based on Aditya for four years, and I'd sooner have spent that time in orbit around Niffelheim."

Now Paul remembered who he was; old Admiral — now Prince-Counselor—Geklar. He and Prince-



Counselor Dorflay would get along famously. The Lord Marshal of Durendal was replying to some objection somebody had made:

"No, nothing of the sort. We hold the view that every civil or political right implies a civil or political obligation. The citizen has a right to protection from the Realm, for instance; he therefore has the obligation to defend the Realm. And his right to participate in the government of the Realm includes his obligation to support the Realm financially. Well, we tax only property; if a nonworker acquires taxable property, he has to go to work to earn the taxes. I might add that our nonworkers are very careful to avoid acquiring taxable property."

"But if they don't have votes to sell, what do they live on?" a Counselor asked in bewilderment.

"The nobility supports them; the landowners, the trading barons, the industrial lords. The more nonworking adherents they have, the greater their prestige." And the more rifles they could muster when they quarreled with their fellow nobles, of course. "Beside, if we didn't do that, they'd turn brigand, and it costs less to support them than to have to hunt them out of the brush and hang them."

"On Aditya, brigandage does not exist."

"On Aditya, all the brigands belong to the Secret Police, only on Aditya they don't call them Secret Police, they call them Servants of the People, Ninth Category."

A shadow passed quickly over the pavilion, and then another. He glanced up quickly, to see two long black troop carriers, emblazoned with the Sun and Cogwheel and armored fist of Security, pass back of the Octagon Tower and let down on the north landing stage. A third followed. He rose quickly.

"Please remain seated, gentlemen, and continue with the luncheon. If you will excuse me for a moment, I'll be back directly." I hope, he added mentally.

Captain-General Dorflay, surrounded by a dozen officers, Thoran and human, had arrived on the lower terrace at the base of the Octagon Tower. They had a full Thoran rifle company with them. As he went down to them, Dorflay hurried forward.

"It has come, Your Majesty!" he said, as soon as he could make himself heard without raising his voice. "We are all ready to die with Your Majesty!"

"Oh, I doubt it'll come quite to that, Harv," he said. "But just to be on the safe side, take that company and the gentlemen who are with you and get up to the mountains and join the Crown Prince and his party. Here." He took a notepad from his belt pouch and wrote rapidly, sealing the note and giving it to Dorflay. "Give this to His Highness, and place yourself under his orders. I know; he's just a boy, but he has a good head. Obey him exactly in everything, but under no circumstances return to the Palace or allow him to return until I call you."

"Your Majesty is ordering me away?" The old soldier was aghast.

"An emperor who has a son can be spared. An emperor's son who is too young to marry can't. You know that."

Harv Dorflay was only mad on one subject, and even within the frame of his madness he was intensely logical. He nodded. "Yes, Your Imperial Majesty. We both serve the Empire as best we can. And I will guard the little Princess Olva, too." He grasped Paul's hand, said, "Farewell, Your Majesty!" and dashed away, gathering his staff and the company of Thorans as he went. In an instant, they had vanished down the nearest rampway.

The emperor watched their departure, and, at the same time, saw a big black aircar, bearing the three-mooned planet, argent on sable, of Travann, let down onto the south landing stage, and another troop carrier let down after it. Four men left the aircar—Yorn, Prince Travann, and three officers in the black of the Security Guard. Prince Ganzay had also left the table; he came from one direction as Prince Travann advanced from the other. They converged on the emperor.

"What's happening here, Prince Travann?" Prince Ganzay demanded. "Why are you bringing all these troops to the Palace?"

"Your Majesty," Prince Travann said smoothly, "I trust that you will pardon this disturbance. I'm sure nothing serious will happen, but I didn't dare take chances. The students from the University are marching on the Palace—perfectly peaceful and loyal procession; they're bringing a petition for Your Majesty—but on the way, while passing through a nonworkers' district, they were attacked by a gang of hooligans connected with a voting-bloc boss called Nutchy the Knife. None of the students were hurt, and Colonel Handrosan got the procession out of the district promptly, and then dropped some of his men, who have since been re-enforced, to deal with the hooligans. That's still going on, and these riots are like forest fires; you never know when they'll shift and get out of control. I hope the men I brought won't be needed here. Really, they're a reserve for the riot work; I won't commit them, though, until I'm sure the Palace is safe."

He nodded. "Prince Travann, how soon do you estimate that the student procession will arrive here?" he asked.

"They're coming on foot, Your Majesty. I'd give them an hour, at least."

"Well, Prince Travann, will you have one of your officers see that the public-address screen in front is ready; I'll want to talk to them when they arrive. And meanwhile, I'll want to talk to Chancellor Khane, Professor Dandrik, Professor Faress and Colonel Handrosan, together. And Count Tammsan, too; Prince Ganzay, will you please screen him and invite him here immediately?"

"Now, Your Majesty?" At first, the Prime Minister was trying to suppress a look of incredulity; then he was trying to keep from showing comprehension. "Yes, Your Majesty; at once." He frowned slightly when he saw two of the Security Guard officers salute Prince Travann instead of the emperor before going away. Then he turned and hurried toward the Octagon Tower.

The officer who had gone to the aircar to use the radio returned and reported that Colonel Handrosan was bringing the Chancellor and both professors from the University in his command-car, having anticipated that they would be wanted. Paul nodded in pleasure.

"You have a good man there, Prince," he said. "Keep an eye on him."

"I know it, Your Majesty. To tell the truth, it was he who organized this march. Thought they'd be better employed coming here to petition you than milling around the University getting into further mischief."

The other officer also returned, bringing a portable viewscreen with him on a contragravity-lifter. By this time, the Bench of Counselors and the three off-planet guests had become anxious and left the luncheon pavilion in a body. The Counselors were looking about uneasily, noticing the black uniformed Security Guards who had left the troop carrier and were taking position by squads all around the emperor. First Citizen Yaggo, and King Ranulf and Lord Koreff, also seemed uneasy. They were avoiding the proximity of Paul as though he had the green death.

The viewscreen came on, and in it the city, as seen from an aircar at two thousand feet, spread out with the Palace visible in the distance, the golden pile of the Octagon Tower jutting up from it. The car carrying the pickup was behind the procession, which was moving toward the Palace along one of the broad skyways, with Gendarmes and Security Guards leading, following and flanking. There were a few Imperial and planetary and school flags, but none of the quantity-made banners and placards which always betray a planned demonstration.

Prince Ganzay had been gone for some time, now. When he returned, he drew Paul aside.

"Your Majesty," he whispered softly, "I tried to summon Army troops, but it'll be hours before any can get here. And the Militia can't be mobilized in anything less than a day. There are only five thousand Army Regulars on Odin, now, anyhow."

And half of them officers and noncoms of skeleton regiments. Like the Navy, the Army had been scattered all over the Empire—on Behemoth and Amida and Xipetotec and Astarte and Jotunnheim—in response to calls for support from Security.

"Let's have a look at this rioting, Prince Travann," one of the less decrepit Counselors, a retired general, said. "I want to see how your people are handling it."

The officers who had come with Prince Travann consulted briefly, and then got another pickup on the screen. This must have been a regular public pickup, on the front of a tall building. It was a couple of miles farther away; the Palace was visible only as a tiny glint from the Octagon Tower, on the skyline. Half a dozen Security aircars were darting about, two of them chasing a battered civilian vehicle and firing at it. On rooftops and terraces and skyways, little clumps of Security Guards were skirmishing, dodging from cover to cover, and sometimes individuals or groups in civilian clothes fired back at them. There was a surprising absence of casualties.

"Your Majesty!" the old general hissed in a scandalized whisper. "That's nothing but a big fake! Look, they're all firing blanks! The rifles hardly kick at all, and there's too much smoke for propellant-powder."

"I noticed that." This riot must have been carefully prepared, long in advance. Yet the student riot seemed to have been entirely spontaneous. That puzzled him; he wished he knew just what Yorn Travann was up to. "Just keep quiet about it," he advised.

More aircars were arriving, big

and luxurious, emblazoned with the arms of some of the most distinguished families in Asgard. One of the first to let down bore the device of Duklass, and from it the Minister of Economics, the Minister of Education, and a couple of other Ministers, alighted. Count Duklass went at once to Prince Travann, drawing him away from King Ranulf and Lord Koreff and talking to him rapidly and earnestly. Count Tammsan approached at a swift half-run.

"Save Your Majesty!" he greeted, breathlessly. "What's going on, sir? We heard something about some petty brawl at the University, that Prince Ganzay had become alarmed about, but now there seems to be fighting all over the city. I never saw anything like it; on the way here we had to go up to ten thousand feet to get over a battle, and there's a vast crowd on the Avenue of the Arts, and—" He took in the Security Guards. "Your Majesty, just what *is* going on?"

"Great and frightening changes." Count Tammsan started; he must have been to a psi-medium, too. "But I think the Empire is going to survive them. There may even be a few improvements, before things are done."

A blue-uniformed Gendarme officer approached Prince Travann, drawing him away from Count Duklass and speaking briefly to him. The Minister of Security nodded, then turned back to the Minister of Economics. They talked for a few moments longer, then clasped hands, and Travann left Duklass with his face wreathed in smiles. The Gendarme officer accompanied him as he approached.

"Your Majesty, this is Colonel Handrosan, the officer who handled the affair at the University."

"And a very good piece of work, colonel." He shook hands with him. "Don't be surprised if it's remembered next Honors Day. Did you bring Khane and the two professors?"

"They're down on the lower landing-stage, Your Majesty. We're delaying the students, to give Your Majesty time to talk to them."

"We'll see them now. My study will do." The officer saluted and went away. He turned to Count Tammsan. "That's why I asked Prince Ganzay to invite you here. This thing's become too public to be ignored; some sort of action will have to be taken. I'm going to talk to the students; I want to find out just what happened before I commit myself to anything. Well, gentlemen, let's go to my study."

Count Tammsen looked around, bewildered. "But I don't understand—" He fell into step with Paul and the Minister of Security; a squad of Security Guards fell in behind them. "I don't understand what's happening," he complained.

An emperor about to have his throne yanked out from under him, and a minister about to stage a *coup d'etat,* taking time out to settle a trifling academic squabble. One thing he did understand, though, was that the Ministry of Education was getting some very bad publicity at a time when it could be least afforded. Prince Travann was telling him about the hooligans' attack on the marching students, and that worried him even more. Nonworking hooligans acted as voting-bloc bosses ordered; voting-bloc bosses acted on orders from the political manipulators of Cartels and pressure-groups, and action downward through the nonworkers was usually accompanied by action upward through influences to which ministers were sensitive.

There were a dozen Security Guards in black tunics, and as many Household Thorans in red kilts, in the hall outside the study, fraternizing amicably. They hurried apart and formed two ranks, and the Thoran officer with them saluted.

Going into the study, he went to his desk; Count Tammsan lit a cigarette and puffed nervously, and sat down as though he were afraid the chair would collapse under him. Prince Travann sank into another chair and relaxed, closing his eyes. There was a bit of wafer on the floor by Paul's chair, dropped by the little dog that morning. He stooped and picked it up, laying it on his desk, and sat looking at it until the door screen flashed and buzzed. Then he pressed the release button.

Colonel Handrosan ushered the three University men in ahead of him—Khane, with a florid, arrogant face that showed worry under the arrogance; Dandrik, gray-haired and stoop-shouldered, looking irritated; Faress, young, with a scrubby red mustache, looking bellicose. He greeted them collectively and invited them to sit, and there was a brief uncomfortable silence which everybody expected him to break.

"Well, gentlemen," he said, "we want to get the facts about this affair in some kind of order. I wish you'd tell me, as briefly and as completely as possible, what you know about it."

"There's the man who started it!" Khane declared, pointing at Faress.

"Professor Faress had nothing to do with it," Colonel Handrosan stated flatly. "He and his wife were in their apartment, packing to move out, when it started. Somebody called him and told him about the fighting at the stadium, and he went there at once to talk his students into dispersing. By that time, the situation was completely out of hand; he could do nothing with the students."

"Well, I think we ought to find out, first of all, why Professor Faress was dismissed," Prince Travann said. "It will take a good deal to convince me that any teacher able to inspire such loyalty in his students is a bad teacher, or deserves dismissal."

"As I understand," Paul said, "the dismissal was the result of a disagreement between Professor Faress and Professor Dandrik about an experiment on which they were working. I believe, an experiment to fix more exactly the velocity of accelerated subnucleonic particles. Beta micropositos, wasn't it, Chancellor Khane?"

Khane looked at him in surprise.

"Your Majesty, I know nothing about that. Professor Dandrik is head of the physics department; he came to me, about six months ago, and told me that in his opinion this experiment was desirable. I simply deferred to his judgment and authorized it."

"Your Majesty has just stated the purpose of the experiment," Dandrik said. "For centuries, there have been inaccuracies in mathematical descriptions of subnucleonic events, and this experiment was undertaken in the hope of eliminating these inaccuracies." He went into a lengthy mathematical explanation.

"Yes, I understand that, professor. But just what was the actual experiment, in terms of physical operations?"

Dandrik looked helpless for a moment. Faress, who had been choking back a laugh, interrupted:

"Your Majesty, we were using the big turbo-linear accelerator to project fast micropositos down an evacuated tube one kilometer in length, and clocking them with light, the velocity of which has been established almost absolutely. I will say that with respect to the light, there were no observable inaccuracies at any time, and until the micropositos were accelerated to 16.067543333⅓ times light-speed, they registered much as expected. Beyond that velocity, however, the target for the micropositos began registering impacts before the source registered emission, although the light target was still registering normally. I notified Professor Dandrik about this, and—"

"You notified him. Wasn't he present at the time?"

"No, Your Majesty."

"Your Majesty, I am head of the physics department of the University. I have too much administrative work to waste time on the technical aspects of experiments like this," Dandrik interjected.

"I understand. Professor Faress was actually performing the experiment. You told Professor Dandrik what had happened. What then?"

"Why, Your Majesty, he simply declared that the limit of accuracy had been reached, and ordered the experiment dropped. He then reported the highest reading before this anticipation effect was observed as the newly established limit of accuracy in measuring the velocity of accelerated micropositos, and said nothing whatever in his report about the anticipation effect."

"I read a summary of the report. Why, Professor Dandrik, did you omit mentioning this slightly unusual effect?"

"Why, because the whole thing was utterly preposterous, that's why!" Dandrik barked, and then hastily added, "Your Imperial Majesty." He turned and glared at Faress; professors do not glare at galactic emperors. "Your Majesty, the limit of accuracy had been reached. After that, it was only to be expected that the apparatus would give erratic reports."

"It might have been expected that the apparatus would stop registering increased velocity relative to the light-speed standard, or that it would begin registering disproportionately," Faress said. "But, Your Majesty, I'll submit that it was not to be expected that it would register impacts before emissions. And I'll add this. After registering this slight apparent jump into the future, there was no proportionate increase in anticipation with further increase of acceleration. I wanted to find out why. But when Professor Dandrik saw what was happening, he became almost hysterical, and ordered the accelerator shut down as though he were afraid it would blow up in his face."

"I think it has blown up in his face," Prince Travann said quietly. "Professor, have you any theory, or supposition, or even any wild guess, as to how this anticipation effect occurs?"

"Yes, Your Highness. I suspect that the apparent anticipation is simply an observational illusion, similar to the illusion of time-reversal experienced when it was first observed, though not realized, that positrons sometimes exceeded light-speed."

"Why, that's what I've been saying, all along!" Dandrik broke in. "The whole thing is an illusion, due—

"To having reached the limit of observational accuracy; I understand, Professor Dandrik. Go on, Professor Faress."

"I think that beyond 16.067543333⅓ times light-speed, the micropositos ceased to have any velocity at all, velocity being defined as rate of motion in four-dimensional space-time. I believe they moved through the three spatial dimensions without moving at all in the fourth, temporal, dimension. They made that kilometer from source to target, literally, in nothing flat. Instantaneity."

That must have been the first time he had actually come out and said it. Dandrik jumped to his feet with a cry that was just short of being a shriek.

"He's crazy! Your Majesty, you mustn't . . . that is, well, I mean—Please, Your Majesty, don't listen to him. He doesn't know what he's saying. He's raving!"

"He knows perfectly well what he's saying, and it probably scares him more than it does you. The difference is that he's willing to face it and you aren't."

The difference was that Faress was a scientist and Dandrik was a science teacher. To Faress, a new door had opened, the first new door in eight hundred years. To Dandrik, it threatened invalidation of everything he had taught since the morning he had opened his first class. He could no longer say to his pupils, "You are here to learn from me." He would have to say, more humbly, "*We* are here to learn from the Universe."

It had happened so many times before, too. The comfortable and established Universe had fitted all the known facts—and then new facts had been learned that wouldn't fit it. The third planet of the Sol system had once been the center of the Universe, and then Terra, and Sol, and even the galaxy, had been forced to abdicate centricity. The atom had been indivisible—until somebody divided it. There had been intangible substance that had permeated the Universe, because it had been necessary for the transmission of light—until it was demonstrated to be unnecessary and nonexistent. And the speed of light had been the ultimate velocity, once, and could be exceeded no more than the atom could be divided. And light-speed had been constant, regardless of distance from source, and the Universe, to explain certain observed phenomena, had been believed to be expanding simultaneously in all directions. And the things that had happened in psychology, when psi-phenomena had become too obvious to be shrugged away.

"And then, when Dr. Dandrik ordered you to drop this experiment, just when it was becoming interesting, you refused?"

"Your Majesty, I couldn't stop, not then. But Dr. Dandrik ordered the apparatus dismantled and scrapped, and I'm afraid I lost my head. Told him I'd punch his silly old face in, for one thing."

"You admit that?" Chancellor Khane cried.

"I think you showed admirable self-restraint in not doing it. Did you explain to Chancellor Khane the importance of this experiment?"

"I tried to, Your Majesty, but he simply wouldn't listen."

"But, Your Majesty!" Khane expostulated. "Professor Dandrik is head of the department, and one of the foremost physicists of the Empire, and this young man is only one of the junior assistant-professors. Isn't even a full professor, and he got his degree from some school away off-planet. University of Brannerton, on Gimli."

"Were you a pupil of Professor Vann Evaratt?" Prince Travann asked sharply.

"Why, yes, sir. I—"

"Ha, no wonder!" Dandrik crowed. "Your Majesty, that man's an out-and-out charlatan! He was kicked out of the University here ten years ago, and I'm surprised he could even get on the faculty of a school like Brannerton, on a planet like Gimli."

"Why, you stupid old fool!" Faress yelled at him. "You aren't enough of a physicist to oil robots in Vann Evaratt's lab!"

"There, Your Majesty," Khane said. "You see how much respect for authority this hooligan has!"

On Aditya, such would be unthinkable; on Aditya, everybody respects authority. Whether it's respectable or not.

Count Tammsan laughed, and he realized that he must have spoken aloud. Nobody else seemed to have gotten the joke.

"Well, how about the riot, now?" he asked. "Who started that?"

"Colonel Handrosan made an investigation on the spot," Prince Travann said. "May I suggest that we hear his report?"

"Yes indeed. Colonel?"

Handrosan rose and stood with his hands behind his back, looking fixedly at the wall behind the desk.

"Your Majesty, the students of Professor Faress' advanced subnucleonic physics class, postgraduate students, all of them, were told of Professor Faress' dismissal by a faculty member who had taken over the class this morning. They all got up and walked out in a body, and gathered outdoors on the campus to discuss the matter. At the next class break, they were joined by other science students, and they went into the stadium, where they were joined, half an hour later, by more students who had learned of the dismissal in the meantime. At no time was the gathering disorderly. The stadium is covered by a viewscreen pickup which is fitted with a recording device; there is a complete audio-visual of the whole thing, including the attack on them by the campus police.

"This attack was ordered by Chan-

cellor Khane, at about 1100; the chief of the campus police was told to clear the stadium, and when he asked if he was to use force, Chancellor Khane told him to use anything he wanted to."

"I did not! I told him to get the students out of the stadium, but—"

"The chief of campus police carries a personal wire recorder," Handrosan said, in his flat monotone. "He has a recording of the order, in Chancellor Khane's own voice. I heard it myself. The police," he continued, "first tried to use gas, but the wind was against them. They then tried to use sono-stunners, but the students rushed them and overwhelmed them. If Your Majesty will permit a personal opinion, while I do not sympathize with their subsequent attack on the Administration Center, they were entirely within their rights in defending themselves in the stadium, and it's hard enough to stop trained and disciplined troops when they are winning. After defeating the police, they simply went on by what might be called the momentum of victory."

"Then you'd say that it's positively established that the students were behaving in a peacable and orderly manner in the stadium when they were attacked, and that Chancellor Khane ordered the attack personally?"

"I would, emphatically, Your Majesty."

"I think we've done enough here, gentlemen." He turned to Count Tammsan. "This is, jointly, the affair of Education and Security. I would suggest that you and Prince Travann join in a formal and public inquiry, and until all the facts have been established and recorded and action decided upon, the dismissal of Professor Faress be reversed and he be restored to his position on the faculty."

"Yes, Your Majesty," Tammsan agreed. "And I think it would be a good idea for Chancellor Khane to take a vacation till then, too."

"I would further suggest that, as this microposito experiment is crucial to the whole question, it should be repeated. Under the personal direction of Professor Faress."

"I agree with that, Your Majesty," Prince Travann said. "If it's as important as I think it is, Professor Dandrik is greatly to be censured for ordering it stopped and for failing to report this anticipation effect."

"We'll consult about the inquiry, including the experiment, tomorrow, Your Highness," Tammsan told Travann.

Paul rose, and everybody rose with him. "That being the case, you gentlemen are all excused. The students' procession ought to be arriving, now, and I want to tell them what's going to be done. Prince Travann, Count Tammsan; do you care to accompany me?"

Going up to the central terrace in front of the Octagon Tower, he turned to Count Tammsan.

"I notice you laughed at that remark of mine about Aditya," he said. "Have you met the First Citizen?"

"Only on screen, sir. He was at me for about an hour, this morning. It seems that they are reforming the educational system on Aditya. On Aditya, everything gets reformed every ten years, whether it needs it or not. He came here to find somebody to take charge of the reformation."

He stopped short, bringing the others to a halt beside him, and laughed heartily.

"Well, we'll send First Citizen Yaggo away happy; we'll make him a present of the most distinguished educator on Odin."

"Khane?" Tammsan asked.

"Khane. Isn't it wonderful; if you have a few problems, you have trouble, but if you have a whole lot of problems, they start solving each other. We get a chance to get rid of Khane, and create a vacancy that can be filled by somebody big enough to fill it; the Ministry of Education gets out from under a nasty situation; First Citizen Yaggo gets what he thinks he wants—"

"And if I know Khane, and if I know the People's Commonwealth of Aditya, it won't be a year before Yaggo has Khane shot or stuffs him into jail, and then the Space Navy will have an excuse to visit Aditya, and Aditya'll never be the same afterward," Prince Travann added.

The students massed on the front lawns were still cheering as they went down after addressing them. The Security Guards were conspicuously absent and it was a detail of red-kilted Thoran riflemen who met them as they entered the hall to the Session Chamber. Prince Ganzay approached, attended by two Household Guard officers, a human and a Thoran. Count Tammsan looked from one to the other of his companions, bewildered. The bewildering thing was that everything was as it should be.

"Well, gentlemen," Paul said, "I'm sure that both of you will want to confer for a moment with your colleagues in the Rotunda before the Session. Please don't feel obliged to attend me further."

Prince Ganzay approached as they went down the hall. "Your Majesty, what *is* going on here?" he demanded querulously. "Just who is in control of the Palace—you or Prince Travann? And where is His Imperial Highness, and where is General Dorflay?"

"I sent Dorflay to join Prince Rodrik's picnic party. If you're upset about this, you can imagine what he might have done here."

Prince Ganzay looked at him curiously for a moment. "I thought I understood what was happening," he said. "Now I— This business about the students, sir; how did it come out?"

Paul told him. They talked for a while, and then the Prime Minister looked at his watch, and suggested that the Session ought to be getting started. Paul nodded, and they went down the hall and into the Rotunda.

The big semicircular lobby was empty, now, except for a platoon of Household Guards, and the Empress Marris and her ladies-in-waiting. She advanced as quickly as her sheath gown would permit, and took his arm; the ladies-in-waiting fell in behind her, and Prince Ganzay went ahead, crying: "My Lords, Your Venerable Highnesses, gentlemen; His Imperial Majesty!"

Marris tightened her grip on his arm as they started forward. "Paul!" she hissed into his ear. "What is this silly story about Yorn Travann trying to seize the Throne?"

"Isn't it? Yorn's been too close the Throne for too long not to know what sort of a seat it is. He'd commit any crime up to and including genocide to keep off it."

She gave a quick skip to get into step with him. "Then why's he filled the Palace with these blackcoats? Is Rod all right?"

"Perfectly all right; he's somewhere out in the mountains, keeping Harv Dorflay out of mischief."

They crossed the Session Hall and took their seats on the double throne; everybody sat down, and the Prime Minister, after some formalities, declared the Plenary Session in being. Almost at once, one of the Prince-Counselors was on his feet begging His Majesty's leave to interrogate the Government.

"I wish to ask His Highness the Minister of Security the meaning of all this unprecedented disturbance, both here in the Palace and in the city," he said.

Prince Travann rose at once. "Your Majesty, in reply to the question of His Venerable Highness," he began, and then launched himself into an account of the student riot, the march to petition the emperor, and the clash with the nonworking class hooligans. "As to the affair at the University, I hesitate to speak on what is really the concern of His Lordship the Minister of Education, but as to the fighting in the city, if it is still going on, I can assure His Venerable Highness that the Gendarmes and Security Guards have it well in hand; the persons responsible are being rounded up, and, if the Minister of Justice concurs, an inquiry will be started tomorrow."

The Minister of Justice assured the Minister of Security that his Ministry would be quite ready to co-operate in the inquiry. Count Tammsan then got up and began talking about the riot at the University.

"What did happen, Paul?" Marris whispered.

"Chancellor Khane sacked a science professor for being too interested in science. The student's didn't like it. I think Khane's successor will rectify that. Have a good time at the Flower Festivals?"

She raised her fan to hide a grimace. "I made my schedule," she said. "Tomorrow, I have fifty more booked."

"Your Imperial Majesty!" The Counselor who had risen paused, to make sure that he had the Imperial attention, before continuing: "Inasmuch as this question also seems to involve a scientific experiment, I would suggest that the Ministry of Science and Technology is also interested, and since there is at present no Minister holding that portfolio, I would suggest that the discussion be continued after a Minister has been elected."

The Minister of Health and Sanity jumped to his feet.

"Your Imperial Majesty; permit me to concur with the proposal of His Venerable Highness, and to extend it with the subproposal that the Ministry of Science and Technology be abolished, and its functions and personnel divided among the other Ministries, specifically those of Education and of Economics."

The Minister of Fine Arts was up before he was fully seated.

"Your Imperial Majesty; permit me to concur with the proposal of Count Guilfred, and to extend it further with the proposal that the Ministry of Defense, now also vacant, be likewise abolished, and its functions and personnel added to the Ministry of Security under His Highness Prince Travann."

So that was it! Marris, beside him, said, "Well!" He had long ago discovered that she could pack more meaning into that monosyllable than the average counselor could into a half-hour's speech. Prince Ganzay was thunderstruck, and from the Bench of Counselors six or eight voices were babbling loudly at once. Four Ministers were on their feet clamoring for recognition; Count Duklass of Economics was yelling the loudest, so he got it.

"Your Imperial Majesty; it would have been most unseemly in me to have spoken in favor of the proposal of Count Guilfred, being an interested party, but I feel no such hesitation in concurring with the proposal of Baron Garatt, the Minister of Fine Arts. Indeed, I consider it a most excellent proposal—"

"And I consider it the most diabolically dangerous proposal to be made in this Hall in the last six centuries!" old Admiral Geklar shouted. "This is a proposal to concentrate all the armed force of the Empire in the hands of one man. Who can say what unscrupulous use might be made of such power?"

"Are you intimating, Prince-Counselor, that Prince Travann is contemplating some tyranical or subversive use of such power?" Count Tammsan, of all people, demanded.

There was a concerted gasp at that; about half the Plenary Session were absolutely sure that he was. Admiral Geklar backed quickly away from the question.

"Prince Travann will not be the last Minister of Security," he said.

"What I was about to say, Your Majesty, is that as matters stand, Security has a virtual monopoly on armed power on this planet. When these disorders in the city—which Prince Travann's men are now bringing under control—broke out, there was, I am informed, an order sent out to bring Regular Army and Planetary Militia into Asgard. It will be hours before any of the former can arrive, and at least a day before the latter can even be mobilized. By the time any of them get here, there will be nothing for them to do. Is that not correct, Prince Ganzay?"

The Prime Minister looked at him angrily, stung by the realization that somebody else had a personal intelligence service as good as his own, then swallowed his anger and assented.

"Furthermore," Count Duklass continued, "the Ministry of Defense, itself, is an anachronism, which no doubt accounts for the condition in which we now find it. The Empire has no external enemies whatever; all our defense problems are problems of internal security. Let us therefore turn the facilities over to the Ministry responsible for the tasks."

The debate went on and on; he paid less and less attention to it, and it became increasingly obvious that opposition to the proposition was dwindling. Cries of, "Vote! Vote!" began to be heard from its supporters. Prince Ganzay rose from his desk and came to the throne.

"Your Imperial Majesty," he said softly. "I am opposed to this proposition, but I am convinced that enough favor it to pass it, even over Your Majesty's veto. Before the vote is called, does Your Majesty wish my resignation?"

He rose and stepped down beside the Prime Minister, putting an arm over Prince Ganzay's shoulder.

"Far from it, old friend," he said, in a distinctly audible voice. "I will have too much need for you. But, as for the proposal, I don't oppose it. I think it an excellent one; it has my approval." He lowered his voice. "As soon as it's passed, place General Dorflay's name in nomination."

The Prime Minister looked at him sadly for a moment, then nodded, returning to his desk, where he rapped for order and called for the vote.

"Well, if you can't lick them, join them," Marris said as he sat down beside her. "And if they start chasing you, just yell, 'There he goes; follow me!' "

The proposal carried, almost unanimously. Prince Ganzay then presented the name of Captain-General Dorflay for elevation to the Bench of Counselors, and the emperor decreed it. As soon as the Session was adjourned and he could do so, he slipped out the little door behind the throne, into an elevator.

In the room at the top of the Octagon Tower, he laid aside his belt and dress dagger and unfastened his tunic, than sat down in his deep chair and called a serving robot. It was the one which had brought him his breakfast, and he greeted it as a friend; it lit a cigarette for him, and poured a drink of brandy. For a long time he sat, smoking and sipping and looking out the wide window to the west, where the orange sun was firing the clouds behind the mountains, and he realized that he was abominably tired. Well, no wonder; more Empire history had been made today than in the years since he had come to the Throne.

Then something behind him clicked. He turned his head, to see Yorn

Travann emerge from the concealed elevator. He grinned and lifted his drink in greeting.

"I thought you'd be a little late," he said. "Everybody trying to climb onto the bandwagon?"

Yorn Travann came forward, unbuckling his belt and laying it with Paul's; he sank into the chair opposite, and the robot poured him a drink.

"Well, do you blame them? What would it have looked like to you, in their place?"

"A *coup d'etat*. For that matter, wasn't that what it was? Why didn't you tell me you were springing it?"

"I didn't spring it; it was sprung on me. I didn't know a thing about it till Max Duklass buttonholed me down by the landing stage. I'd intended fighting this proposal to partition Science and Technology, but this riot blew up and scared Duklass and Tammsan and Guilfred and the rest of them. They weren't too sure of their majority—that's why they had the election postponed a couple of times—but they were sure that the riot would turn some of the undecided Counselors against them. So they offered to back me to take over Defense in exchange for my supporting their proposal. It looked too good to pass up."

"Even at the price of wrecking Science and Technology?"

"It was wrecked, or left to rust into uselessness, long ago. The main function of Technology has been to suppress anything that might threaten this state of economic *rigor mortis* that Duklas calls stability, and the function of Science has been to let muttonheads like Khane and Dandrik dominate the teaching of science. Well, Defense has its own scientific and technical sections, and when we come to carving the bird, Duklass and Tammsan are going to see a lot of slices going onto my plate."

"And when it's all cut up, it will be discovered that there is no provision for original research. So it will, please My Majesty to institute an Imperial Office of Scientific Research, independent of any Ministry, and guess who'll be named to head it."

"Faress. And, by the way, we're all set on Khane, too. First Citizen Yaggo is as delighted to have him as we are to get rid of him. Why don't we get Vann Evaratt back, and give him the job?"

"Good. If he takes charge there at the opening of the next academic year, in ten years we'll have a thousand young men, maybe ten times that many, who won't be afraid of new things and new ideas. But the main thing is that now you have Defense, and now the plan can really start firing all jets."

"Yes." Yorn Travann got out his cigarettes and lit one. Paul glanced at the robot, hoping that its feelings hadn't been hurt. "All these native uprisings I've been blowing up out of inter-tribal knife fights, and all these civil wars my people have been manufacturing; there'll be more of them, and I'll start yelling my head off for an adequate Space Navy, and after we get it, these local troubles will all stop, and then what'll we be expected to do? Scrap the ships?"

They both knew what would be done with some of them. It would have to be done stealthily, while nobody was looking, but some of those ships would go far beyond the boundaries of the Empire, and new things would happen. New worlds, new problems. Great and frightening changes.

"Paul, we agreed upon this long ago, when we were still boys at the University. The Empire stopped growing, and when things stop growing, they start dying, the death of petrifaction. And when petrifaction is complete, the cracking and the crumbling starts, and there's no way of stopping it. But if we can get people out onto new planets, the Empire won't die; it'll start growing again."

"You didn't start that thing at the University, this morning, yourself, did you?"

"Not the student riot, no. But the hooligan attack, yes. That was some of my own men. The real hooligans began looting after Handrosan had gotten the students out of the district. We collared all of them, including their boss, Nutchy the Knife, right away, and as soon as we did that, Big Moogie and Zikko the Nose tried to move in. We're cleaning them up now. By tomorrow morning there won't be one of these nonworkers' voting blocks left in Asgard, and by the end of the week they'll be cleaned up all over Odin. I have discovered a plot, and they're all involved in it."

"Wait a moment." Paul got to his feet. "That reminds me; Harv Dorflay's hiding Rod and Olva out in the mountains. I wanted him out of here while things were happening. I'll have to call him and tell him it's safe to come in, now."

"Well, zip up your tunic and put your dagger on; you look as though you'd been arrested, disarmed and searched."

"That's right." He hastily repaired his appearance and went to the screen across the room, punching out the combination of the screen with Rodrik's picnic party.

A young lieutenant of the Household Troops appeared in it, and had to be reassured. He got General Dorflay.

"Your Majesty! You are all right?"

"Perfectly all right, general, and it's quite safe to bring His Imperial Highness in. The conspiracy against the Throne has been crushed."

"Oh, thank the gods! Is Prince Travann a prisoner?"

"Quite the contrary, general. It was our loyal and devoted subject, Prince Travann, who crushed the conspiracy."

"But— But, Your Majesty—!"

"You aren't to be blamed for suspecting him, general. His agents were working in the very innermost councils of the conspirators. Every one of the people whom you suspected—with excellent reason—was actually working to defeat the plot. Think back, general; the scheme to put the gun in the viewscreen, the scheme to sabotage the elevator, the scheme to introduce assassins into the orchestra with guns built into their trumpets—every one came to your notice because of what seemed to be some indiscretion of the plotters, didn't it?"

"Why . . . why, yes, Your Majesty!" By this time tomorrow, he would have a complete set of memories for each one of them. "You mean, the indiscretions were deliberate?"

"Your vigilance and loyalty made it necessary for them to resort to these fantastic expedients, and your vigilance defeated them as fast as they came to your notice. Well, today, Prince Travann and I struck back. I may tell you, in confidence, that every one of the conspirators is dead. Killed in this afternoon's rioting—which was incited for that purpose by Prince Travann."

"Then— Then there will be no more plots against your life?" There was a note of regret in the old man's voice.

"No more, Your Venerable Highness."

"But— What did Your Majesty call me?" he asked incredulously.

"I took the honor of being the first to address you by your new title, Prince-Counselor Dorflay."

He left the old man overcome, and blubbering happily on the shoulder of the Crown Prince, who winked at his father out of the screen. Prince Travann had gotten a couple of fresh drinks from the robot and handed one to him when he returned to his chair.

"He'll be finding the Bench of Counselors riddled with treason inside a week," Travann said. "You handled that just right, though. Another case of making problems solve each other."

"You were telling me about a plot you'd discovered."

"Oh, yes; this is one to top Dorflay's best efforts. All the voting-bloc bosses on Odin are in a conspiracy to start a civil war to give them a chance to loot the planet. There isn't a word of truth in it, of course, but it'll do to arrest and hold them for a few days, and by that time some of my undercovers will be in control of every nonworker vote on the planet. After all, the Cartels put an end to competition in every other business; why not a Voting Cartel, too? Then, whenever there's an election, we just advertise for bids."

"Why, that would mean absolute control—"

"Of the nonworking vote, yes. And I'll guarantee, personally, that in five years the politics of Odin will have become so unbearably corrupt and abusive that the intellectuals, the technicians, the business people, even the nobility, will be flocking to the polls to vote, and if only half of them turn out, they'll snow the nonworkers under. And that'll mean, eventually, an end to vote-selling, and the nonworkers'll have to find work. We'll find it for them."

"Great and frightening changes." Yorn Travann laughed; he recognized the phrase. Probably started it himself. Paul lifted his glass. "To the Minister of Disturbance!"

"Your Majesty!" They drank to each other, and then Yorn Travann said, "We had a lot of wild dreams, when we were boys; it looks as though we're starting to make some of them come true. You know, when we were in the University, the students would never have done what they did today. They didn't even do it ten years ago, when Vann Evaratt was dismissed."

"And Van Evaratt's pupil came back to Odin and touched this whole thing off." He thought for a moment. "I wonder what Faress has, in that anticipation effect."

"I think I can see what can come out of it. If he can propagate a wave that behaves like those micropositos, we may not have to depend on ships for communication. We may be able, some day, to screen Baldur or Vishnu or Aton or Thor as easily as you screened Dorflay, up in the mountains." He thought silently for a moment. "I don't know whether that would be good or bad. But it would be new, and that's what matters. That's the only thing that matters."

"Flower Festivals," Paul said, and, when Yorn Travann wanted to know what he meant, he told him. "When Princess Olva's Empress, she's going to curse the name of Klenn Faress. Flower Festivals, all around the galaxy, without end."

THE END

IN TIMES TO COME

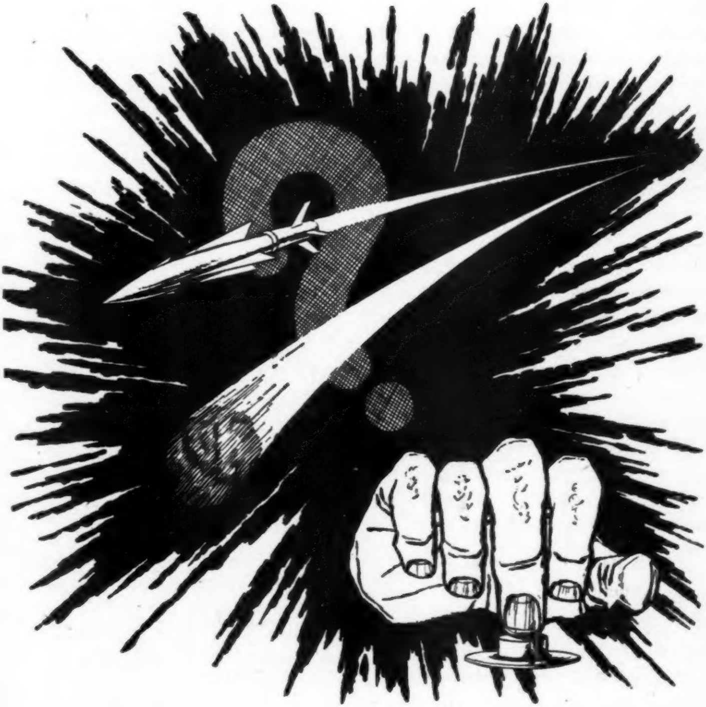
Earth has a moon that's big, and fairly close, and very encouraging to development of space travel. And Earth has a night sky thick with stars. That these things have long influenced Man in his psychology, any glance at poetry can show.

And Man's adapted to such a star-lit, moon-lit world. What would happen to men who moved to a fair, green, Earth-like world . . . out at the farthest edge of the galaxy, where most of the year the nights were dark, not with clouds, but with the utter absence of any other star or moon or planet?

A. Bertram Chandler, in next month's story "To Run the Rim" suggests that really open skies might not have the meaning of "freedom"—but of crushing loneliness.

THE EDITOR.

TRIGGERMAN



The essential requirements of a first-class triggerman are two: that he know how to pull the trigger—and when not to!

BY J. F. BONE

Illustrated by van Dongen

GENERAL Alastair French was probably the most important man in the Western Hemisphere from the hours of 0800 to 1600. Yet all he did was sit in a windowless room buried deeply underground, facing a desk that stood against a wall. The wall was studded with built-in mechanisms. A line of twenty-four-hour clocks was inset near the ceiling, showing the corresponding times in all time zones on Earth. Two huge TV screens below the clocks were flanked on each side by loud-speaker systems. The desk was bare except for three telephones of different colors—red, blue, and white—and a polished plastic slab inset with a number of white buttons framing a larger one whose red surface was the color of fresh blood. A thick carpet, a chair of peculiar design with broad flat arms, and an ash tray completed the furnishings. Warmed and humidified air circulated through the room from concealed grilles at floor level. The walls of the room were painted a soft restful gray, that softened the indirect lighting. The door was steel and equipped with a time lock.

The exact location of the room and the Center that served it was probably the best kept secret in the Western world. Ivan would probably give a good per cent of the Soviet tax take to know precisely where it was, just as the West would give a similar amount to know where Ivan's Center was located. Yet despite the fact that its location was remote, the man behind the desk was in intimate contact with every major military point in the Western Alliance. The red telephone was a direct connection to the White House. The blue was a line that reached to the headquarters of the Joint Chiefs of Staff and to the emergency Capitol hidden in the hills of West Virginia. And the white telephone connected by priority lines with every military center and base in the world that was under Allied control.

General French was that awesome individual often joked about by TV comics who didn't know that he really existed. He was the man who could push the button that would start World War III!

French was aware of his responsibilities and took them seriously. By nature he was a serious man, but, after three years of living with ultimate responsibility, it was no longer the crushing burden that it was at first when the Psychological Board selected him as one of the most inherently stable men on Earth. He was not ordinarily a happy man; his job, and the steadily deteriorating world situation precluded that, but this day was a bright exception. The winter morning had been extraordinarily beautiful, and he loved beauty with the passion of an artist. A flaming sunrise had lighted the whole Eastern sky with golden glory, and the crisp cold air stimulated his senses to appreciate it. It was much too lovely for thoughts of war and death.

He opened the door of the room precisely at 0800, as he had done for three years, and watched a round, pink-cheeked man in a gray suit rise from the chair behind the desk. Kleinmeister, he thought, neither looked like a general nor like a potential executioner of half the world. He was a Santa Claus without a beard. But appearances were deceiving. Hans Kleinmeister could, without regret kill half the world if he thought it was necessary. The two men shook hands, a ritual gesture that marked the changing of the guard, and French sank into the padded chair behind the desk.

"It's a beautiful day outside, Hans," he remarked as he settled his stocky, compact body into the automatically adjusting plastifoam. "I envy you the pleasure of it."

"I don't envy you, Al," Kleinmeister said. "I'm just glad it's all over for another twenty-four hours. This waiting gets on the nerves." Kleinmeister grinned as he left the room. The steel door thudded into place behind him and the time lock clicked. For the next eight hours French would be alone.

He sighed. It was too bad that he had to be confined indoors on a day like this one promised to be, but there was no help for it. He shifted luxuriously in the chair. It was the most comfortable seat that the mind and ingenuity of man could contrive. It had to be. The man who sat in it must have every comfort. He must want for nothing. And above all he must not be irritated or annoyed. His brain must be free to evaluate and decide—and nothing must distract the functioning of that brain. Physical comfort was a means to that end—and the chair provided it. French felt soothed in the gentle caress of the upholstery.

The familiar feeling of detachment swept over him as he checked the room. Nominally, he was responsible to the President and the Joint Chiefs of Staff, but practically he was responsible to no one. No hand but his could set in motion the forces of massive retaliation that had hung over aggression for the past twenty years. Without his sanction no intercontinental or intermediate range missile could leave its rack. He was the final authority, the ultimate judge, and the executioner if need be—a position thrust upon him after years of intensive tests and screening. In this room he was as close to a god as any man had been since the beginning of time.

French shrugged and touched one of the white buttons on the panel.

"Yes, sir?" an inquiring voice came from one of the speakers.

"A magazine and a cup of coffee," said General French.

"What magazine, sir?"

"Something light—something with pictures. Use your judgment."

"Yes, sir."

French grinned. By now the word was going around Center that the Old Man was in a good humor today. A cup of coffee rose from a well in one of the broad arms of the chair, and a magazine extruded from a slot in its side. French opened the magazine and sipped the coffee. General Craig, his relief, would be here in less than eight hours, which would leave him the enjoyment of the second best part of the day if the dawn was any indication. He hoped the sunset would be worthy of its dawn.

He looked at the center clock. The hands read 0817 . . .

At Station 2 along the Dew Line the hands of the station clock read 1217. Although it was high noon it was dark outside, lightened only by a faint glow to the south where the winter sun strove vainly to appear above the horizon. The air was clear, and the stars shone out of the blue-black sky of the polar regions. A radarman bending over his scope stiffened. "Bogey!" he snapped, "Azimuth 0200, coming up fast!"

The bogey came in over the north polar cap, slanting downward through the tenuous wisps of upper atmosphere. The gases ripped at its metallic sides with friction and oxidation. Great gouts of flaming brilliance spurted from its incandescent outer surface boiling away to leave a trail of sparkling scintillation in its wake. It came with enormous speed, whipping over the Station almost before the operator could hit the general alarm.

The tracking radar of the main line converged upon the target. Electronic computers analyzed its size, speed and flight path, passing the information to the batteries of interceptor missiles in the sector. "Locked on," a gunnery officer announced in a bored tone, "Fire two." He smiled. Ivan was testing again. It was almost routine, this business of one side or the other sending over a pilot missile. It was the acid test. If the defense network couldn't get it, perhaps others would come over—perhaps not. It was all part of the cold war.

Miles away two missiles leaped from their ramps flashing skyward on flaming rockets. The gunnery officer waited a moment and then swore. "Missed, by damn! It looks like Ivan's got something new." He flipped a switch. "Reserve line, stand by" he said. "Bogey coming over. Course 0200."

"Got her," a voice came from the speaker of the command set. "All stations in range fire four—salvo!"

"My God what's in that thing! Warn Stateside! Execute!"

"All stations Eastseaboard Outer Defense Area! Bogey coming over!"

"Red Alert, all areas!" a communications man said urgently into a microphone. "Ivan's got something this time! General evacuation plan Boston to Richmond Plan One! Execute!"

"Outer Perimeter Fire Pattern B!"

"Center! Emergency Priority! General, there's a bogey coming in. Eastseaboard sector. It's passed the outer lines, and nothing's touched it so far. It's the damndest thing you ever saw! Too fast for interception. Estimated target area Boston-Richmond. For evaluation—!"

"Sector perimeter on target, sir!"

"Fire twenty, Pattern C!"

All along the flight path of the bogey, missile launchers hurled their cargoes of death into the sky. A moving pattern formed in front of the plunging object that now was flaming brightly enough to be seen in the cold northern daylight. Missiles struck, detonated, and were absorbed into the ravening flames around the object, but it came on with unabated speed, a hissing roaring mass of destruction!

"God! It's still coming in!" an anguished voice wailed. "I told them we needed nuclear warheads for close-in defense!"

More missiles swept aloft, but the bogey was now so low that both human and electronic sensings were too slow. An instantaneous blast of searing heat flashed across the land in its wake, crisping anything flammable in its path. Hundreds of tiny fires broke out, most of which were quickly extinguished, but others burned violently. A gas refinery in Utica exploded. Other damage of a minor nature was done in Scranton and Wilkes Barre. The reports were mixed with military orders and the flare of missiles and the crack of artillery hurling box barrages into the sky. But it was futile. The target was moving almost too fast to be seen, and by the time the missiles and projectiles reached intercept point the target was gone, drawing away from the fastest defense devices with almost contemptuous ease.

General French sat upright in his chair. The peaceful expression vanished from his face to be replaced by a hard intent look, as his eyes flicked from phones to TV screen. The series of tracking stations, broadcasting over wire, sent their images in to be edited and projected on the screens in French's room. Their observations appeared at frighteningly short intervals.

French stared at the flaring dot that swept across the screens. It could not be a missile, unless—his mind faltered at the thought—the Russians were farther advanced than anyone had expected. They might be at that —after all they had surprised the world with sputnik not too many years ago, and the West was forced to work like fiends to catch up.

"Target confirmed," one of the speakers announced with unearthly calm. "It's Washington!"

The speaker to the left of the screen broke into life. "This is Conelrad," it said. "This is not a test, repeat—*this is not a test!* The voice faded as another station took over. "A transpolar missile is headed south along the eastern seaboard. Target Washington. Plan One. Evacuation time thirty seconds—

Thirty seconds! French's mind recoiled. Washington was dead! You couldn't go anywhere in thirty seconds! His hand moved toward the red button. This was it!

The missile on the screen was brighter now. It flamed like a miniature sun, and the sound of its passage was that of a million souls in torment! "It can't stand much more of that," French breathed. "It'll burn up!"

"New York Sector — bogey at

twelve o'clock—high! God! *Look* at it!"

The glare of the thing filled the screen.

The blue phone rang. "Center," French said. He waited and then laid the phone down. The line was dead.

"Flash!" Conelrad said. "The enemy missile has struck south of New York. A tremendous flash was seen fifteen seconds ago by observers in civilian defense spotting nets . . . No sound of the explosion as yet . . . More information—triangulation of the explosion indicates that it has struck the nation's capitol! Our center of government has been destroyed!" There was a short silence broken by a faint voice "Oh my God!—all those poor people!"

The red phone rang. French picked it up. "Center," he said.

The phone squawked at him.

"Your authority?" French queried dully. He paused and his face turned an angry red. "Just who do you think you are colonel? I'll take orders from the Chief—but no one else! Now get off that line! . . . Oh, I see. Then it's my responsibility? . . . All right I accept it—now leave me alone!" He put the phone gently back on the cradle. A fine beading of sweat dotted his forehead. This was the situation he had never let himself think would occur. The President was dead. The Joint Chiefs were dead. He was on his own until some sort of government could be formed.

Should he wait and let Ivan exploit his advantage, or should he strike? Oddly he wondered what his alter ego in Russia was doing at this moment. Was he proud of having struck this blow—or was he frightened. French smiled grimly. If he were in Ivan's shoes, he'd be scared to death! He shivered. For the first time in years he felt the full weight of the responsibility that was his.

The red phone rang again.

"Center—French here . . . Who's that? . . . Oh yes, sir, Mr. Vice . . . er Mr. President! . . . Yes sir, it's a terrible thing . . . What have I done? Well, nothing yet, sir. A single bogey like that doesn't feel right. I'm waiting for the follow up that'll confirm . . . Yes sir I know—but do *you* want to take the responsibility for destroying the world? What if it wasn't Ivan's? Have you thought of that? . . . Yes, sir, it's my judgment that we wait . . . No sir, I don't think so, if Ivan's back of this we'll have more coming, and if we do I'll fire . . . No sir, I will not take that responsibility . . . Yes, I know Washington's destroyed, but we still have no proof of Ivan's guilt. Long-range radar has not reported any activity in Russia. . . . Sorry, sir, I can't see it that way —and you can't relieve me until 1600 hours . . . Yes, sir, I realize what I'm doing . . . Very well, sir, if that's the way you want it I'll resign at 1600 hours. Good-by." French dropped the phone into its cradle and wiped his forehead. He had just thrown his career out of the window, but that was another thing that couldn't be helped. The President was hysterical now. Maybe he'd calm down later.

"Flash!" the radio said. "Radio

Moscow denies that the missile which destroyed Washington was one of theirs. They insist that it is a capitalist trick to make them responsible for World War III. The Premier accuses the United States . . . hey! wait a minute! . . . accuses the United States of trying to foment war, but to show the good faith of the Soviet Union, he will open the country to UN inspection to prove once and for all that the Soviet does not and has not intended nuclear aggression. He proposes that a UN team investigate the wreckage of Washington to determine whether the destruction was actually caused by a missile. Hah! Just what in hell does he think caused it?"

French grinned thinly. Words like the last were seldom heard on the lips of commentators. The folks outside were pretty wrought up. There was hysteria in almost every word that had come into the office. But it hadn't moved him yet. His finger was still off the trigger. He picked up the white phone. "Get me Dew Line Headquarters," he said. "Hello Dew Line, this is French at Center. Any more bogeys? . . . No? . . . That's good . . . No, we're still holding off. . . . Why? . . . Any fool would know why if he stopped to think!" He slammed the phone back into its cradle. Damn fools howling for war! Just who did they think would win it? Sure, it would be easy to start things rolling. All he had to do was push the button. He stared at it with fascinated eyes. Nearly three billion lives lay on that polished plastic surface, and he could snuff most of them out with one jab of a finger.

"Sir!" a voice broke from the speaker. "What's the word—are we in it yet?"

"Not yet, Jimmy."

"Thank God!" the voice sounded relieved. "Just hang on, sir. We know they're pressuring you, but they'll stop screaming for blood once they have time to think."

"I hope so," French said. He chuckled without humor. The personnel at Center knew what nuclear war would be like. Most of them had experience at Frenchman's Flat. They didn't want any part of it if it could be avoided. And neither did he.

The hours dragged by. The phones rang, and Conelrad kept reporting—giving advice and directions for evacuation of the cities. All the nation was stalled in the hugest traffic jam in history. Some of it couldn't help seeping in, even through the censorship. There was danger in too much of anything, and obviously the country was overmechanized. By now, French was certain that Russia was innocent. If she wasn't, Ivan would have struck in force by now. He wondered how his opposite number in Russia was taking it. Was the man crouched over his control board waiting for the cloud of capitalist missiles to appear over the horizon? Or was he, too, fingering a red button debating whether or not to strike before it was too late.

"Flash!" the radio said. "Radio Moscow offers immediate entry to any UN inspection team authorized by the

General Assembly. The Presidium has met and announces that under no circumstances will Russia take any aggressive action. They repeat that the missile was not theirs, and suggest that it might have originated from some other nation desirous of fomenting war between the Great Powers . . . ah Nuts!"

"That's about as close to surrender as they dare come," French murmured softly. "They're scared green—but then who wouldn't be?" He looked at the local clock. It read 1410. Less than two hours to go before the time lock opened and unimaginative Jim Craig came through that door to take his place. If the President called with Craig in the seat, the executive orders would be obeyed. He picked up the white phone.

"Get me the Commanding General of the Second Army," he said. He waited a moment. "Hello George, this is Al at Center. How you doing? Bad, huh? No, we're holding off . . . Now hold it, George. That's not what I called for. I don't need moral support. I want information. Have your radiac crews checked the Washington Area yet? . . . They haven't. Why not? Get them on the ball! Ivan keeps insisting that that bogey wasn't his and the facts seem to indicate he's telling the truth for once, but we're going to blast if he can't prove it! I want the dope on radioactivity in that area and I want it now! . . . If you don't want to issue an order—call for volunteers . . . So they might get a lethal dose—so what? . . . Offer them a medal. There's always someone who'd walk into hell for the chance of getting a medal. Now get cracking! . . . Yes, that's an order."

The radio came on again. "First reports of the damage in Washington," it chattered. "A shielded Air Force reconnaissance plane has flown over the blast area, taking pictures and making an aerial survey of fallout intensity. The Capitol is a shambles. Ground Zero was approximately in the center of Pennsylvania Avenue. There is a tremendous crater over a half mile wide, and around that for nearly two miles there is literally nothing! The Capitol is gone. Over ninety-eight per cent of the city is destroyed. Huge fires are raging in Alexandria and the outskirts. The Potomac bridges are down. The destruction is inconceivable. The landmarks of our—"

French grabbed the white phone. "Find out who the Air Force commander was who sent up that recon plane over Washington!" he barked. "I don't know who he is—but get him *now*!" He waited for three minutes. "So it was you, Willoughby! I thought it might be. This is French at Center. What did that recon find? . . . It did hey? . . . Well now, isn't that simply wonderful! You stupid publicity crazy fool! What do you mean by withholding vital information! Do you realize that I've been sitting here with my finger on the button ready to kill half the earth's population while you've been flirting around with reporters? . . . Dammit! That's no excuse! You should be cashiered—and if I have any influence around here tomorrow, I'll see that you are. As it is, you're relieved as of now! . . . What do you mean I can't do that? . . . Read your regulations again, and then get out of that office and place yourself under arrest in quarters! Turn over your command to your executive officer! You utter driveling fool! . . . Aaagh!!" French snarled as he slammed the phone back.

It began ringing again immediately. "French here . . . Yes, George . . . You have? . . . You did? . . . It isn't? . . . I thought so. We've been barking up the wrong tree this time. It was an act of God! . . . Yes, I said an act of God! Remember that crater out in Arizona? Well, this is the same thing—a meteor! . . . Yes, Ivan's still quiet. Not a peep out of him. The Dew Line reports no activity."

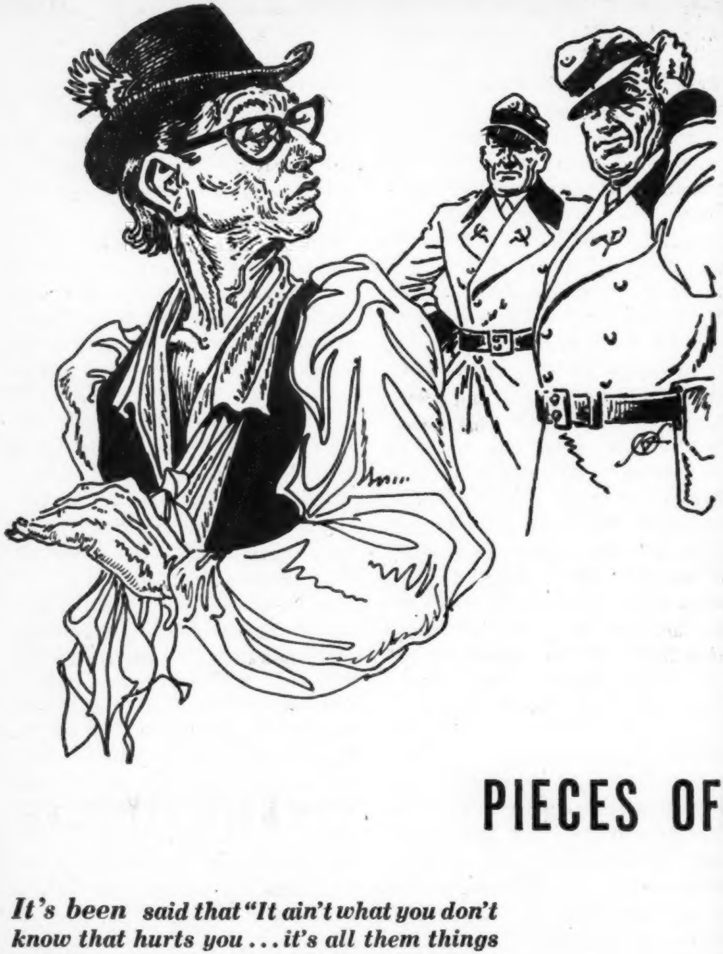
The blue phone began to ring. French looked at it. "O.K., George—apology accepted. I know how you feel." He hung up and lifted the blue phone. "Yes, Mr. President," he said. "Yes, sir. You've heard the news I suppose . . . You've had confirmation from Lick Observatory? . . . Yes, sir, I'll stay here if you wish . . . No, sir, I'm perfectly willing to act. It was just that this never did look right—and thank God that you understand astronomy, sir. . . . Of course I'll stay until the emergency is over, but you'll have to tell General Craig . . . Who's Craig? —why he's my relief, sir." French looked at the clock. "He comes on in twenty minutes . . . Well, thank you, sir. I never thought that I'd get a commendation for not obeying orders."

French sighed and hung up. Sense was beginning to percolate through the shock. People were beginning to think again. He sighed. This should teach a needed lesson. He made a mental note of it. If he had anything to say about the make-up of Center from now on—there'd be an astronomer on the staff, and a few more of them scattered out on the Dew Line and the outpost groups. It was virtually certain now that the Capitol was struck by a meteorite. There was no radioactivity. It had been an act of God—or at least not an act of war. The destruction was terrible, but it could have been worse if either he or his alter ego in Russia had lost control and pushed the buttons. He thought idly that he'd like to meet the Ivan who ran their Center.

"The proposals of the Soviet government," the radio interrupted, "have been accepted by the UN. An inspection team is en route to Russia, and others will follow as quickly as possible. Meanwhile the UN has requested a cease-fire assurance from the United States, warning that the start of a nuclear war would be the end of everything." The announcer's voice held a note of grim humor. "So far, there has been no word from Washington concerning these proposals."

French chuckled. It might not be in the best taste, and it might be graveyard humor—but it was a healthy sign.

THE END



PIECES OF....

***It's been** said that "It ain't what you don't know that hurts you . . . it's all them things you know that ain't so." The People's State knew exactly what little Donald was . . .*

Illustrated by Freas

.....THE GAME

BY MACK REYNOLDS

THE pilot cut his engines with celebrated Swiss precision and the craft settled into its groves easily, gently.

Donald said "Confound it, I think I shall never quite get used to take-off and landing in one of these monsters."

The pilot was politely expressionless. "They still operate the airlines . . . sir."

"Oh, yes, but they're so *slow,* you know."

"They are that," the pilot said. "Well, here we are. Immigration and Customs are over in that direction."

"I've been here before," Donald said.

The Swiss did little more than glance at his passport. Neutral for five hundred years, diplomatic immunity was still meaningful here. He made arrangements for a limousine, tossed his brief case into the back and sat up front with the chauffeur.

The ride to the border took them approximately an hour.

Donald spoke only once. "I just *love* Switzerland," he murmured. "A gargantuan estate with endless lawns, tremendous rock gardens."

The chauffeur was one hundred and eighty pounds of man and had been an Alpine guide back when there had still been a tourist trade. He grunted.

At the border, Donald checked his brief case with the Swiss authorities after emptying his pockets into it, and then, passport in hand, crossed over.

The guard began to snap to attention, took another look at him, then jerked a thumb at the brick, glass and chrome building ahead, Donald had been here before, too, so he walked quickly ahead without asking directions.

In all it took some two hours including the medical inspection and his change of clothing. What little he had brought with him, only excepting the diplomatic passport, was left in check. Finally he was led to the desk of the Colonel of the People's Police.

The Colonel said, "Sit down." Your application says you are an attaché at the Alger-Moroc legation of your country and that you wish to visit Vienna. Why?"

"Oh, really now, sir," Donald blinked indignantly through his thick lensed rimless glasses. "Diplomatic immunity and all that, you know."

"And all that," the Colonel repeated. "Why are you going to Vienna?"

"Confound it!" Donald came to his full five feet two inches. "I don't have to tell you. Oh, this irritates me so. Every time. *Every* time."

The Colonel looked at him.

Donald said, "I'm . . . I'm going to Vienna to steal some of your military documents, or whatever you call them. Secret papers, or something!"

The granite faced police head glared at him, then slowly broke. He leaned forward and coughed, but was unable to disguise the amusement. Finally he flung himself back into the chair and roared his laughter. His two assistants, until now as flat of expression as their commander, allowed themselves a smile apiece.

"All right," the Colonel said. "These forms say you want three days."

"That will be ample," Donald said, attempting to suppress his own titter.

The Colonel motioned for one of the aides to stamp the passport and then passed it to Donald himself. "What's your real reason for entry—more or less? I have to report something."

"Well," Donald said, "confidentially, some of the boys in Vienna are arranging a trip up the Danube to the Wachau for the *heurige* season, and I managed to secure a short vacation. It was too good to miss, don't you know."

For a brief moment the Colonel looked somewhat more than military. He said, "I was born in Krems." He cleared his throat. "Have a glass of *Flohbaxn* to me."

"Of course," Donald gushed. "What a pleasant thing to say, Colonel."

He left and from the Customs Building walked to the autocab stand hoping that this time he'd have no trouble finding one that he could dial completely through to Vienna. Such a bother, otherwise. Stopping at Innsbruck, stopping at Salzburg; stopping at Linz. Such a bother.

In Vienna, he went directly to the consulate which occupied one of the minor Hapsburg palaces on the Schottenring. There were two of the secret police guards near the gate but they had only grinned at him as he approached. When he was ten yards past one of them muttered, *"Ein Warmer."* Donald knew what the German idiom meant, but he didn't turn; he'd heard it often enough before.

A slightly built butler opened the door and Donald handed over his hat and said, "I believe you're Hawkins, aren't you?"

"Yes sir. Nice of you to remember, sir."

"Tell Mr. Abernathy that I'm here. He is expecting me."

"He told me to conduct you to the music room, sir. They are having a cocktail party. In honor of the Brazilo-Argentine economic attaché, sir."

"Confound it, Hawkins, one does get so tired of these cocktail parties."

In the music room thirty or forty

of the diplomatic representatives of a dozen nations sipped martinis, nibbled on hors d'oeuvres, in the baroque atmosphere of Maria Theresa's era. Half of the room's furniture was antique, and gaudily uncomfortable. Its occupants did little to improve the unlikely qualities of the surroundings; they were overly obese, quite elderly, some physically deformed, or some—like Donald—tiny in size.

The newcomer secured a martini, let his eyes go idly about until they found the men he was seeking. He strolled over, murmured, "Gentlemen."

Dr. Kerns turned his plump, pinkish baby face and said, "Smile when you say that." And then, "Donald!"

Donald shook hands first with Abernathy, the all but senile consul, and then with the consulate doctor. He said, "I thought there was to be a cruise this evening to Dürnstein. Will anyone be in shape for it?"

Abernathy's mouth twitched. "You know how it is, Donald, in Vienna. Just one party after another. It will take a trip back home just to straighten myself up. But the cruise is still on. Intimate little affair, really, just a score or so. We plan to scale the hill, sort of a pilgrimage to the castle."

"Castle?" Donald said.

"Oh, you know, Richard the Lion Hearted, on his way home from the Holy Land was kidnaped and held prisoner in the castle in Dürnstein for over a year. His faithul attendant, the singer Blondel, disguised himself as a strolling troubadour and sang his songs beneath each castle wall. Finally Richard heard him and managed to get a message out and the ransom was arranged."

"A very romantic tale," Dr. Kerns said, sipping his cocktail, looking at Donald over the glass rim.

The consul said, "Oh, those were *men* in those days. But here, Donald, you must be exhausted. I'll have Hawkins take you to your room. You can freshen up a bit."

The doctor said, "I'll be up to discuss things with you later, Donald."

"Wonderful," Donald said.

The yacht was anchored in the Donau-Kanal near the foot of Heinrichsgasse. The night was beautiful, so three or four of them strolled over directly from the party. Still laughing, still enjoying martini-gaiety.

Donald said, "We're being followed, of course."

"Of course," the Caribbean League assistant consul chuckled. "Always."

Dr. Kerns' rounded baby face broke into a cherubic grin. "I actually had four of them trail me to Demel's the other day when I was on a mission no more dangerous than to secure a cup of *Kaffee mit Schlag* and some *Palatschinken*. Four of them, mind you. You sometimes wonder where they get the manpower."

One of the Brazilo-Argentines took it up. "Well, *really,* when you consider how very few foreigners they allow, they needn't spread their men very thin. But at least I'm happy they place the same restrictions on all of us. It is really quite gay, in spite of all the police supervision. "We're just *thrown* together."

Dr. Kerns said in uncharacteristic seriousness, "I sometimes wonder if the move was made in an attempt to humiliate all foreign governments, or if they actually feel that there is less danger. You wind up *persona non grata* unless you are:"—he began to enumerate on his fingers—" one, physically deformed; two, old as the Alps; three, weigh less than one hundred pounds; four, weigh more than three hundred; five—" He coughed gently and let the sentence dribble away.

"Well," the Caribbean said, managing to find objection in that, "our side did lose the war, after all. And the way things are their side calls the tune. If they wish to make certain requirements as to diplomats accredited to the People's State, they are in the position to enforce them."

"Such a serious subject," Donald protested. "I'm afraid you're a party-pooper, doctor."

"What a horrible accusation," Kerns laughed, his belly shaking. "But here is the yacht. I do hope the stewards have properly iced the *Katzensprung*. The difficulty with these chaps is that they're so busy spying on us that they can't do their duties."

At the gangplank, two People's Police corporals checked their names and their I.D. cards. The trip had been arranged for weeks in advance, but the formalities were still to be observed.

"Red tape," Donald murmured. "No pun intended. Red tape, red tape, red tape."

One of the police looked at him with less than warmth. "Are you criticizing our methods?"

"Oh, confound it, no," Donald said. "Your methods are your own business and none of mine."

"Yes," the corporal said. He gave Donald's passport another quick scrutiny, noted down something on his pad.

"Oh heavens," Donald said under his breath.

The sun was setting upstream in the direction of what had once been Czechoslovakia when the consulate yacht finally cast off. Abernathy was miffed at the guests who had turned up so late. He had expected to spend the latter part of the evening attending a *heuriger* in one of the smaller towns en route. The new wine celebrations were going on with a vim.

Two hours later the doctor knocked gently on Donald's cabin door and slid his bulk inside after a quick glance up and down the corridor. He said quickly and briefly, "All right, the crew is fully into the spirit of the thing. Half of them are already tight. I'd go over the stern if I were you."

Donald took off his glasses, fumbled for a moment before the small mirror which hung above the washbowl as he carefully placed contact lenses in position. Then he stripped quickly while the doctor took a small hypodermic set from an inner pocket. He broke a vial's top away by rapping it smartly on the side of the washbowl, loaded the needle with quiet care.

Donald stood motionless while his arm was swabbed, the hypodermic pressed home. "Confound it," he said, "I do hate the needle." He pulled back the mattress to reveal clothes and equipment in the bunk's bottom. He began to dress.

After a minute or two he growled, "How long will this dextro-hormone shot be effective this time, Doc?"

"Almost eight hours, Don. I can't give you more than that. As it is, it'll take you a week to recover."

"I won't need more than that—knock on wood. Give me a hand with this harness, will you?"

The holster rested below his left armpit. He shrugged into a leather Tyrolien sport jacket, concealing it. Then the doctor helped him into the rubber frogman suit. He put the snorkle and flippers under his left arm and shook hands with the roly-poly medical attaché, grinned and said, "See you in the morning."

The doctor winced under the pressure of the hand clasp, made a face and said, "Stop showing off, tough guy."

Kerns let himself out the cabin door, walked to the end of the corridor, looked up and down, then snaked his hand up to turn out the passageway lights. A moment later, the dark rubber-clad figure scurried past him, slid over the tiny ship's rail and into the muddiness of the Danube.

The doctor watched for a long moment, saw nothing, not even the snorkle top, then turned to rejoin the party which was already somewhat on the hilarious side.

The swimmer pushed against the current and toward the opposite shore from the one along which the yacht had been running. If they'd timed this right, the lights across the way should be Langenlebarn, a mile or two down stream from the larger town of Tullen.

They'd timed it correctly but they'd failed to take into full consideration the heavy current of the Danube, possibly the fastest flowing of all major navigable rivers. Even with the aid of his flippers, and powerful swimmer that he was, he pulled out a full mile below the town.

This was bad. His knowledge of the country was in his head, gleaned from detailed maps, but he hadn't expected to get this far off his planned route. The only thing to do was to go upstream, locate the Langenlebarn landing, where he had expected to emerge, and start from there. He could only hope there were no military patrols along the international waterway at this point.

He stripped the rubber suit off, found a heavy cobblestone, weighted the equipment down and threw it into the current. He scrambled up the embankment, finding at the top a paved path that first surprised and worried him. Then he understood. It was the cobblestone paved way along which horses and mules had once pulled barges up the Danube before the advent of steam. The path was still excellent, which would speed him up, but, on the other hand, increased the possibilities of his meeting a patrol or . . .

A voice said, "Guten abend!"

Don said, "Gute nacht," and they passed. A young fellow and his girl.

He certainly had a case of the jitters. What was the matter with him. He was correctly dressed and strolling along the river on a beautiful night. Why should anyone suspect him of being on an espionage mission?

In fifteen minutes, he had orientated himself. He debated momentarily whether to enter the *gasthaus,* order a beer and go into the rest room to check his clothing and equipment. He vetoed the idea. The check wasn't really necessary and the town was small enough for a stranger to stand out. Instead, he made his way toward the railroad station. Vienna proper was thirty kilometers to the southeast and local trains ran every hour or so. He timed himself in such manner that he spent no time at the station itself, but swung aboard just as the train was leaving.

The conductor didn't look at him twice. Merely stood before him until Don held out a ten ruble note. "Wien," Don said.

The seats were wooden, the wheels evidently innocent of a trip to the shop for many a year; at least they felt square, rather than round. What was there about these people that they pushed themselves to the point of building military bases on the Moon, but had such a time replacing an electric light bulb on Earth? They seemed geniuses in one field, children in the next.

At the Franz Josef station he had a momentary shock when he spotted the four People's Police checking papers as the train disgorged. He considered entering the *Hermen* toilet and investigating the possibilities of getting out a window. But then he noted that the check was bored routine. The passengers were flicking open worn wallets to flash bedraggled travel permits. He had a set of forgeries to cover up any contingency short of a real checkup. He passed with the rest, flicked open his wallet then slid it back into his pocket with a motion of the automatic.

According to his instructions it was the D tram that took him to his destination. He crossed to the little traffic island that stood before the bahnhof, caught the first D and slumped into his seat in imitation of a tired factory hand. He looked at his wrist watch; he was within a few minutes of calculated time.

He dropped off the car at the Rathausplatz, on the Dr. Karl-Lueger-Ring, and walked briskly toward the right front corner of the Rathaus. The guards here were plentiful but he was still an average citizen on an average citizen's business. He entered the civic building at the keller entrance and all eyes dropped away from him.

He shook his head in continued amazement at the motivations of these people. Here he was in one of the most important buildings in Central Europe. Had this been his own security minded nation, he wouldn't have been able to get within rifle range of the place. But no, the People's State stressed the so-called cultural attributes of their regime. They would never go so far as to close up the most famous Rathauskeller in all of what had once been Austria. It was a cultural landmark and consequently still open to the public.

There were half a dozen monstrous rooms leading off the main hallway of the ancient cellars. Banquet halls, public dining rooms, kitchens, rest rooms. Don made his way to the far end, to the Grinzinger-Keller and entered. Possibly two or three hundred persons were dining, dominated by the famous looming seventy thou-

sand liter wine barrel. A four-piece heurige band was making its way about the tables, the musicians clad in *lederhosen* and making with violin, harp-guitar, accordian and even a portable zither. It could have been the Vienna of fifty years ago, the one great difference in the drab uniforms of the officers of the People's State, as compared to the finery of yesteryear's Imperial Austro-Hungarian troopers.

He ordered a half liter of the heurige wine, told the waiter, when it had been brought in a *Weinheber*, that he would order later. He filled his glass from the age-old container, sat around for five or ten minutes, then made his way through the tables, obviously in search of the men's room.

The rest rooms led off the main hall of the keller. He ran into his first hazard, his first departure from routine. There was a sergeant of the People's police stationed in the hall. The People's State might have its shortcomings in some security measures when culture interfered, but they weren't completely foolish.

The sergeant observed him idly as he went into the room marked Herren. There was no particular reason for him to be interested, but Don knew that if he didn't emerge within a reasonable time the other would wonder why.

A corpulent elderly Austrian complete with Franz Josef type side whiskers was the only other occupant for the moment. Don waited until he had left, then went to the back of the room. Happily, there was no attendant. The windows were where reported and he stood on tiptoe and looked out briefly. He threw open the window, which led off into a below-ground level court, then returned to the entry door and stuck his head out.

He said to the guard, his voice puzzled, "There is something strange in here. Perhaps you had better report it."

The guard pushed past him with one brush of a heavy arm, darted inside. "Wrong? What's wrong? What'd'ya mean?"

Don pointed to the window. "It's open. I thought I saw a man go through it, just as I entered."

The sergeant swore, began tugging at his holster, raised himself on tiptoe and peered through the opening.

Don packed the full ninety pounds of his weight into his effort, let the edge of his right hand chop sharply into the back of the other's neck. He caught the collapsing sergeant expertly, hauled him in the direction of one of the room's booths. He held the other with his left arm while fishing through his pockets for a ten kopec coin, managed to get one into the slot, opened the door and dragged the sergeant to the seat.

He checked, The man was dead. He closed the booth door behind him and hustled toward the window, vaulted up and through. Standing in the small court, he considered momentarily then closed the window behind him except for a quarter inch. He walked ten full paces forward, made a ninety degree turn, walked six steps and fetched up before a sheer wall.

Carefully he worked his way up it. A toe hold here, an age-old drain opening there, some wrought iron decorations, a broken stone, a missing brick.

A quirk of memory brought back to him some instruction from a mountain climbing instructor, almost ten years before. *"There are six common types of foothold, large, normal, small, sloping, pressure and wedge. The feet of the rock climber must be as sensitive to touch as the hands of a surgeon."* He grinned inwardly and wished that the instructor were here now, belaying him from the cornice above.

His hand fumbled at a window ledge, strengthened, and he pulled himself up. Yes, it yielded to his pressure—he pushed the window open. He wondered vaguely and briefly who had accomplished this, and at what danger. But only briefly—he had his own problems.

His hand flicked under the jacket and the .38 Noiseless was snuggled in his palm. He tread quietly down the hall.

At the first break in the corridor he waited, took several deep breaths, then turned the corner quickly, the gun at the ready.

There were two of them before the door of the room that was his destination. It was the expected number. Before their eyes had more than widened at his sudden appearance he had shot four times. Two bullets for each. One would have been sufficient in either case; they were less than fifteen feet away from him.

Nevertheless, he first reloaded, then bent over them quickly to check for life before going on. No witnesses were possible.

The door opened to his pressure, although he had been prepared if it hadn't. He drew the two bodies inside, left them in the middle of the room's floor, their blood staining the thick carpeting. He closed the door behind him, searched for lighting. Damn it! Such a little thing. He hadn't been informed where the light switch was and he had brought neither flashlight, lighter nor matches. Damn! Double damn! He had no time to waste stumbling about a dark room.

He sank to his knees and explored the bodies, ran his hands over their pockets. The second one had matches in his tunic. Don struck one quickly, spotted a lamp on the desk, fumbled about until he found its switch.

The tiny safe was built into the desk top itself, ingeniously. He brought forth his tiny burglar kit from an inner pocket, took out drills, was at work in moments.

He flicked a quick agonizing glance at his watch as he labored. He was running five minutes overtime. Behind him he had left the sergeant dead in the rest room and awaiting discovery. Suppose that the sergeant's relief came, or a superior officer making his rounds?

Ten minutes overtime. An idiotic thought went through his head, even in the midst of his complete concentration. Should an espionage agent get time and half for overtime? A fair day's work for a fair day's wages. What were fair wages for this sort of overtime?

The safe door came away and he plunged his hand inside. Here it was, the document for which he'd been sent. He knew no more about it than he needed for its identification.

He spread it out on the desk top and brought forth his passport from his jacket pocket. He opened the booklet to its center, brought a penknife from his pocket and very carefully detached an ultra-thin transparent covering from the two center pages of the passport. He pressed the passport down against the document, held it there while he counted slowly to sixty.

One, and two, and three, and four, and five . . .

Time crept.

When he was through, he looked at the passport pages. Nothing. The process he had just used was unknown to him, but his directions had been explicit. He shrugged and returned the passport to his pocket, switched the light out and hustled back to the hall.

It was still clear. He retraced his steps. Found the window through which he had entered the building. Crawled through it. Held himself by finger tips and took a chance in dropping to the court below. Made it without break or sprain. Back to the window of the rest room. He pushed it open, slid through into the light of the room beyond. A startled occupant looked up at him and bugged his eyes.

Don stepped forward, swung his right, fingers pointed like a spear into the innocent's solar plexus. Air *whooshed* out and the other doubled forward. Don clipped him expertly over the ear, turned and was on his way before the man's head hit sickenly on the tile floor. Precautionary measures called for his finishing the man off with his .38 Noiseless but he didn't have the requisite heartlessness.

In the corridor beyond, Don slowed his pace. Walked with deliberation toward the stairs that climbed to the street. The Rathauskeller corridor was a hundred, a thousand, a million miles long. He was half down it before a voice called, "Wait!"

He hesitated only briefly. Should he make a dash for it?

Useless.

He turned. Raised his eyebrows.

It was his waiter. He said accusingly, "You forgot to pay for your wine."

Don let the air from his lungs, reached into a pocket. "Sorry. Forgot. I had something on my mind. Here, And here is something extra."

He continued on his way. Out the entrance. Past the police eyes again. Would any of them wonder why he had spent so little time in the Rathauskeller? Too short a time to have dined?

Of course not. There were too many diners below for them to remember individuals.

He caught the D tram again, going in the opposite direction, retraced his way to the Franz Josef bahnhof and waited a quarter hour for a train to Krems. He had missed the one his schedule had called for.

Waiting was death. He had no idea how long it would take for the machinery of the People's police to move into high. Without doubt it was already in low gear and shifting fast.

Krems was two hours away and across the Danube. The first city of the Wachau section, Austria's wine center.

He couldn't risk taking a local bus from Krems to Dürnstein, eight kilometers further on; he couldn't even risk taking a local milk-run train. In both cases his face might be remembered by driver, conductor or fellow passenger. He walked it.

When the road edged the river a mile or so out of town, he waited for a stretch empty of houses and one by one scaled his weapons, burglar kit and other equipment into the waters until finally he retained nothing except clothes and the passport.

It was early morning when he reeled up to the yacht's gangplank. The watch, who looked as though he suffered hangover himself, eyed him. "I don't remember you going ashore . . . sir."

Don giggled sloppily. "My," he slurred, "kind of drunk out tonight, isn't it?"

"Where are the others?" the sailor said uncomfortably and visably wondering whether to call one of the yacht's officers.

This had been a mistake. Don might have realized that the doctor would have kept the party out in some heurige tavern, getting impossibly tight so that keeping tabs on any individual would be doubly confusing. He should have tried to locate the party and joined it.

He put a fluttering hand to his forehead. "Oh, I left them. This heurige wine is so deceptive. So very light in taste, almost like cider. But . . . oh, dear—" He held his hand to his mouth, let his eyes widen, and pushed past the gang-watch, hurrying for one of the yacht's baths.

The sailor grinned after him; suspicions evidently allayed.

In the cabin, Don removed his contact lenses, dropped them out the porthole, took up his glasses and restored them to his nose. He stripped off his clothing, garbed himself in pajamas. He considered for a moment all eventualities. He wondered what story the doctor had given the others —if any—to explain his absence. Well, he'd find that out tomorrow. Meanwhile, he'd have to sleep off the balance of the effects of the dextro-hormone shot. That was no problem, it was fading fast. The aftermath would come in a day or two and he'd be limp as a dishrag; in a way, he looked forward to it. A couple of weeks in a sanitarium. He didn't know how good an act he'd put on for the sailor at the gangplank a few minutes ago but an act wasn't going to do tomorrow; there'd probably be a double medical test. Only the physically delicate were not found *persona non grata* when accredited to the People's State or even allowed to visit there.

In the morning, the representatives of the People's police were on hand in force. They shook down the yacht in careful detail. Questioned the guests at length in spite of the fact that on the face of it they alibied each other and were alibied by the crew.

In the lounge, Donald was saying to the Caribbean attaché, "Confound it, I shall leave today. Back to my job in Rabat. My health isn't up to this sort of thing all the time. It just isn't *fun* to come here and see all you boys. It just isn't *fun!* All this nonsense."

"Damn it, *quiet!*" one of the police captains snarled at him. "I can't stand the chattering of you . . ."

A lieutenant colonel looked at him. "That will be all, captain."

"Yes, sir," the captain swallowed, but the nausea was still in his face.

"Well, *really,*" Donald demured.

The doctor had been going through a session with one of the interrogators in another room. He entered now and looked into Donald's eyes. "Donald, you look a bit the worst for wear," he said. "Should I get you an aspirin?"

The police captain rolled his eyes toward the ceiling in agony, when Donald said, "Sweet of you, but it's not necessary. I did exactly what I wanted to do last night. Imagine, attending a real heurige! So charming."

Dr. Kerns said, "Wonderful Donald. So nice you enjoyed yourself." It was the first opportunity they'd had to exchange conversation.

At the Swiss border, before the Colonel again, Donald protested strongly at the extraordinary precautions being taken.

"Really now, Colonel. Do you think I could possibly be smuggling out the Hapsburg crown jewels, or—"

"More important than any damn jewels," the official growled.

"—Or just what. Really, this is so exasperating. The precautions you take at your border. Switzerland is the only entry point. I am able to cross with nothing at all, just *nothing,* not even my own clothing. Only my passport. And now that I'm returning you've even taken away my glasses. Really, Colonel, what do you think?"

The Colonel snarled, "Three men were killed in Vienna the night before last and—"

Donald stared at him. "Gracious, did you think I did it?" He assumed a mock pose. "I appreciate your suspicions. I can just see myself, you know, as a super-spy chap, a sort of, well, desperado. Just wait until I tell the boys—how you detained me at the border."

The Colonel stared at him, then grunted. He examined again the medical report on the desk before him. On the face of it this man was about as dangerous as a portion of apple strudel.

"All right," he snapped. "You can go."

Donald reclaimed the clothing he had worn when he originally entered the People's State, crossing to the Swiss side of the border where he reclaimed his brief case and its contents.

Ralph Borden was waiting for him there with a departmental turbo-car which he was driving himself.

Once they were under way, Borden said, "You got it?"

"Yes," Donald said, wearily. The after-effects of the hypo were beginning to hit him now. He handed the passport to the other. "The center two pages, as I suppose you know. The chaps back at the laboratories should be congratulated. Certainly the most unique copying device I've ever seen. And all invisible."

Ralph Borden looked at him. He said, "Listen, Don, how do you feel after one of these missions? When you've been, well, changed and are in action? You had to finish off three men this time, didn't you?"

Donald put a hand to his forehead. "Ralph, don't ask me. It's as though it's someone else altogether. It's terrible. It's just not me, Ralph."

Ralph cleared his throat. "Yeah," he said.

THE END

THE ANALYTICAL LABORATORY

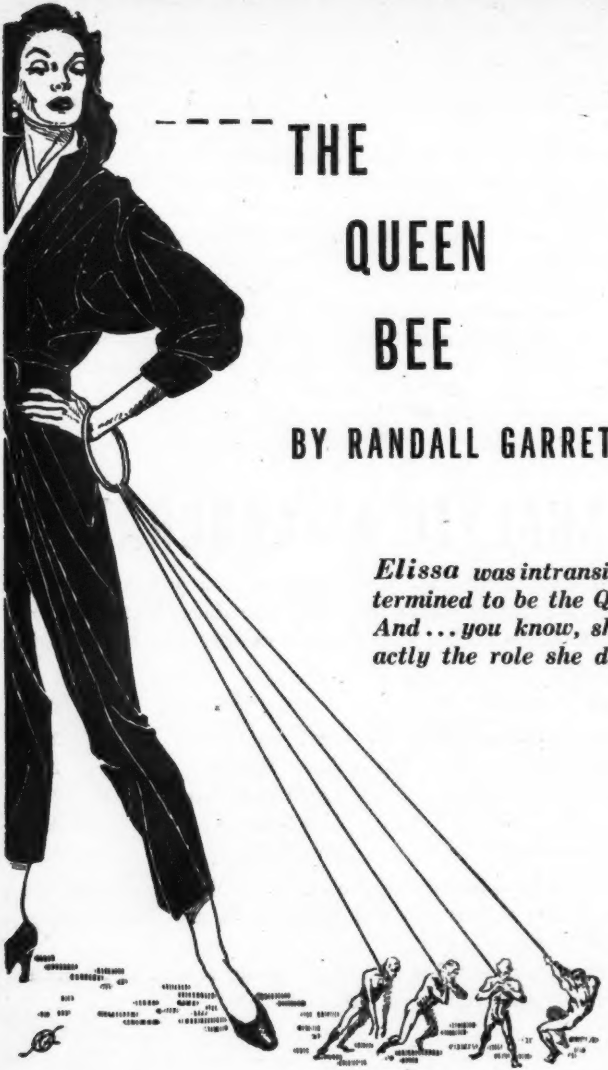
In a literal sense, Christopher Anvil, James Schmitz, and Poul Anderson had a run for their money on the September issue reader votes. The bonus money goes where you readers vote it; it sort of see-sawed, before settling down as follows:

PLACE	STORY	AUTHOR	POINTS
1.	We Have Fed Our Seas (Pt.II)	Poul Anderson	2.54
2.	Harvest Time	James Schmitz	2.76
3.	Foghead	Christopher Anvil	2.85
4.	Interview	David Luzon Morris	3.66
5.	Basic Agreement	Avis Pabel	4.23

So Poul Anderson—who has been doing very well by himself by doing well by you, this last year or so!—gets the 1¢ bonus, and Jim Schmitz gets the ½¢ a word bonus.

May I point out that what you readers say in your reports is of acute and immediate interest to the authors, as well as to

THE EDITOR.



THE QUEEN BEE

BY RANDALL GARRETT

Elissa was intransigently determined to be the Queen Bee. And . . . you know, she got exactly the role she demanded!

Illustrated
by Freas

THE problem was, what were they going to do with Elissa Krand?

She was one of the seven people who had managed to get to the pilot boat of the interstellar liner *Generatrix* before the heat from the great engines rendered the main body of the ship unlivable. As soon as the situation had become perfectly clear to her, she had gone into hysterics and Peter Branson, now ex-navigator of the *Generatrix,* had reluctantly felled her with a right cross to the jaw.

The only trouble was, the floor of the pilot boat was rapidly getting hotter. If the others left her there, she'd likely wake up full of first- and second-degree burns—if, considering the area of contact with the floor, she woke up at all.

Cray Folee, the civil engineer from Dornax, looked strong enough. He was standing a little to one side, his eyes looking down at his hands. He didn't see his hands, though; if he had, he wouldn't be twisting them around each other that way. He had nerves, but he was controlling them.

Branson made up his mind. "Mr. Folee, I can't hold up this Krand girl and watch the instruments of the pilot boat at the same time. Would you take over?"

Folee looked up from his hands. "What? Oh. Sure."

He walked over to Branson and the girl, crouched a little to get his arms around her thighs, then stood up. She collapsed over his right shoulder, and he held her there, entirely unconscious, like a sack of sand.

That would do for now, Branson thought. If it became much hotter in the pilot boat, he'd have to think of something else. Folee couldn't hold her that way if the evaporation of perspiration became absolutely necessary on every square centimeter of skin surface.

Dr. Greeth, the hard-nerved, white-haired, little surgeon was watching the instrument board as Branson stepped over to it. The others were standing well back, watching Branson.

"The velocity is still hyperbolic," said Dr. Greeth coolly. "How much longer, do you think?"

Branson looked at the hyperbola traced in glowing white across the violet screen. "Not long. Minutes."

"Why can't we leave now? It's getting hot in here!" said a voice behind Branson.

Branson didn't bother to turn around; he recognized Rob Darren's voice.

"The *Generatrix* is circling too fast," he said. "The only thing that's keeping us going around that planet down there is the gravity anchors that lock the ship to the center of the planet. The actual gravitational field of the planet isn't great enough to keep us in an elliptical orbit at this velocity." He tapped the face of the orbit screen. "See that dot, just at the bend of that line? That represents the planet. The line represents the path the ship would take if the gravity anchors weren't holding us."

Keep talking, he thought. *Keep*

them interested. Keep their minds off the trouble we're in.

"In the past few minutes, it has changed from a nearly flat hyperbola to this." Again he tapped the screen. "It looks almost like a parabola now, because the engines are slowing us down."

Tina Darren, Rob's wife, cleared her throat. Her voice, when it came, was calm—almost cool. "I thought the engines had burned up. I thought that's what was causing the heat."

"Not exactly," Branson said, angry because the girl had brought up the subject of heat again. He'd have to twist it back away somehow. "It's simply that the engines are converting their energies into heat instead of velocity. Even working at minute fraction of their normal output, that adds up to quite a lot of heat—but not enough to burn out an interstellar engine. Not yet, at least." He realized that he still hadn't changed the subject and cursed himself.

"What will the screen show when we've slowed enough?" Dr. Greeth asked suddenly.

Branson threw him a grateful glance. "Theoretically, the line would go from hyperbola to parabola to ellipse. Actually, the parabolic orbit is so critical that the ship will pass that velocity before it can register on the screen. It will simply change from a sharply curved hyperbola to an ellipse."

"But what's that got to do with this pilot boat?" Darren asked. There was a faint quaver in his voice. "Do we have to follow the path of the big ship?"

"Yes. If we cut loose now, it would be—" Branson paused. "Ever whirl a weight around on a string? If the string breaks, the weight flies away on a tangent. If we cut loose now, the same thing would happen to us. And these pilot boats don't have enough power to correct an orbit like that. We can land from a near-circular orbit, but not from a hyperbolic one."

"My God, it's hot." That was Della Thorn, the blonde.

Branson kept his eyes on the screen. He could feel the perspiration flowing underneath his clothing.

"We'll have to strip," he said. "Otherwise, this heat will broil us. We need the evaporation."

There was silence around him as he began to peel off his own jumper.

"Tina!" It was Rob Darren's shocked voice. "You can't—"

"You heard what he said," Tina Darren said calmly.

More silence.

Then: "Get away from that wall! You want to burn?"

It was Folee's voice. Branson jerked his head around. Della Thorn was huddled against one corner, her eyes wide with fear.

"I won't take my clothes off," she said. "You can't make me!"

"Get away from that wall!" Branson snapped.

Then Dr. Greeth's voice crackled through the hot air.

"Branson! The screen!"

Branson looked back quickly.

While his head had been turned, the parabolalike hyperbola had become a near-circular ellipse.

Without another word, Peter Branson punched the launching button.

"Lucky!" said Folee exultantly. "Just plain lucky! You wouldn't find a planet like this once in a dozen tries!"

The pilot boat had landed in a forest of remarkably Earthlike trees. Branson was the only one of the seven who had been to Earth, but Earth's fauna and flora were to be seen, to a greater or lesser degree, on every civilized planet of the galaxy.

The trunks of the trees were marked with vertical ridges of corklike bark, giving them a corrugated appearance. Each tree seemed to have two or three times as many leaves as an Earth oak, and each leaf was punctured with a pattern of holes, making them look like like small lace doilies or big, green snowflakes.

The arrangement allowed plenty of diffuse light to seep through to the forest floor, which was covered with a carpet of soft, wide-bladed grass.

The filtered, greenish illumination gave the impression that the whole forest was underwater.

The air was cool, but not cold, and it felt wonderful after the awful heat of the *Generatrix*. Even after the pilot boat had pushed itself away from the mother ship, the little refrigerators hadn't been able to do better than drop the tiny craft's temperature a few degrees. The cool air of the new planet felt wonderfully soothing against their bare skins.

Peter Branson sat on the trunk of a fallen tree and began to pull on his jumper. Dr. Greeth, who had already put his clothing back on, came over and sat down next to Branson.

"If we're careful," he said, "and if we eliminate as much inbreeding as possible, we can have this planet populated within a few centuries."

"We?" said Branson thoughtlessly. Then he clamped his lips together as though he wanted to bite his tongue out. Dr. Greeth was an old man—very old. No man can live forever.

The surgeon smiled wryly. "Yes, *we*. Perhaps I'm not biologically capable of being a father, but I *can* teach. Maybe I can be a sort of foster father."

"*Mis*ter Branson!"

At the sound of his voice, which had come from directly behind him, Branson flicked his gaze over the scene in front of him. Darren and his wife were holding each other tightly a few yards away; they were looking at the forest, but they obviously had no eyes for the beauty of the alien landscape.

Folee was standing near them, pointing at something in the trees while Della Thorn, still cringing in spite of the fact that she was again fully clad, watched his hand.

That left only one.

"Yes, Miss Krand?" said Branson without turning.

She knew that he would not turn, so she stepped over the log and stood in front of him.

She was tall for a woman—a full six feet. Her long jet-brown hair fell to her shoulders, and her gray-green eyes glistened like gems.

"You hit me," she said, her voice icy.

Branson looked up at her. She was lean and muscular—not beautiful, but somehow terribly, magnetically attractive.

Branson nodded and started to say something.

Too late. "You *hit* me," she repeated. "How *dare* you?"

Branson sighed. "I had no choice, Miss Krand. You had lost control of yourself. You had—"

Again she cut him off. *"I? I* lost control of myself?" She laughed harshly. "A man—a big, strong man—strikes a girl with his fist and then has the temerity to say that it was *she* who lost control." Her eyes narrowed. "May I ask why you hit me?"

Peter Branson looked at her steadily for a moment, then he took a deep breath and grinned. "Sure. Go ahead and ask, sweetheart."

She opened her mouth to say something, but this time it was Branson's turn to interrupt. "When I told you that you would have to spend the rest of your life on this planet, you erupted like a Trigevvian volcano. You tried to get out of the pilot boat. You tried to run, to put it bluntly.

"And," he grinned even wider, "you had no place to run to. If I hadn't clobbered you, you'd have opened the air lock to the ship, and—"

Branson stopped. "What's the matter, Miss Krand?" He couldn't tell whether the look on her face meant shock, hatred, anger, or actual physical illness.

"You're still trying to insist on this stupid lie?" she asked. There was both arrogance and fear in her voice.

Branson folded his hands carefully. "Lie?"

She shook her head—not in negation, but as though she were trying to shake off something unpleasant but sticky.

"Do you honestly mean we are really marooned here?" she asked huskily. "Forever?"

Branson smiled. "Not forever. Only for the rest of our lives."

"Is there no chance that we'll ever leave here?"

Branson thought for a minute before answering. He decided that brutality was best, right from the start. There was, he knew, a small—a vanishingly small — chance of being rescued. There was no recorded instance of it in the history of the galaxy, but it *could* happen. But he felt that not even a faint glimmer of hope should be held out for this girl.

"None whatever," he said firmly. "No one else in the whole galaxy knows where we are. They couldn't know. And they won't even bother to look for us."

"Can't they . . . can't they follow the flight path of the *Generatrix?"*

"They could," Branson said, "but they won't. That would mean searching a skewed cylinder of space about ten light-years in diameter and over eight thousand light-years long. And in this part of the galaxy, that would include far too many suns to investigate one by one. Some one of these days, some high-caliber genius is going to invent a near-instantaneous method of communication between stars—but until that day comes along, a marooned group will stay marooned until they are accidentally rediscovered. That usually takes from two to seven centuries. We'll be here the rest of our lives."

Elissa Krand's eyes blazed. "You can't do this!" she stormed. "Do you know who I am? Do you think you can push me around like this?"

Branson blinked. How do you answer a silly question like that? He would have blazed back at her, but the sudden pressure of Dr. Greeth's grip on his arm made him decide to take the cautious course.

"The answer is *no* and *yes*. No, I don't know who you are, and yes, I do think I can push you around. Haven't you ever heard of Brytell's Law?" He kept his voice level.

She just looked at him for a long time. Then, calmly, she said: "I know it." And she turned and walked toward the grounded pilot boat.

"We're going to have trouble with that girl," said Dr. Greeth softly, watching her retreating back.

Branson furrowed his brow and made a small *moué*. "I know, I know. But I have a hunch that we'll have even more trouble with the Darren couple."

"How so?" Dr. Greeth didn't sound as though he disagreed; he didn't even sound as though he really wanted an answer, except to find out Branson's thoughts.

Branson broke off a small bit of rotting bark from the tree trunk they were sitting on, and crumbled it in his fingers before answering.

"Darren and his wife aren't going to fall in with any rotation plan easily," he said, dropping the broken grains of wood to the ground, sifting them thoughtfully through his fingers.

"That can wait," said Dr. Greeth, shrugging casually. "Give them six months; they'll fall in line. They know Brytell's Law. It's the cultural heritage of half the planets of the galaxy."

"I wasn't thinking of both the Darrens," Branson said in correction. "That Tina seems to be a pretty competent woman. But Rob Darren—" he spread his hands—"I don't know how to phrase it. He seems a little adolescent, maybe."

"I watched him aboard ship," Greeth said. "In some ways, your diagnosis is correct. What do you think of the Thorn woman?"

Branson glanced at the blonde, who was standing across the glade with Folee—near him, but not too near. "As a snap judgment, I'd say she was an androphobe."

Dr. Greeth raised an eyebrow. "So? Could be. I remember seeing her a couple of times on shipboard, and she was always by herself. Well, we'll have to see how she gets along with Folee."

Branson slowly turned his head until his eyes met those of the old surgeon. Greeth looked back calmly.

Eventually, a smile came across Branson's face. "So you have us all paired off, eh? And I get the Krand girl? I thought you liked me."

Dr. Greeth smiled back. "I do. But, more than that, I respect you. You could handle Della Thorn, sure; but so can Folee. But you're the only one who could handle Elissa Krand —if she can be handled."

"We're going to have a great old time here," said Branson resignedly. "A great old time. I can see that already."

There was never any question as to who would be the policy-maker of the group. As the only ship's officer present, as well as by virtue of his own natural ability, Peter Branson would easily have won an election if anyone had bothered to suggest a vote.

Just as obviously, Cray Folee came second. He was a quiet man, a strong man. Only by the barest margin, by the indefinable lack of some essential quality of leadership, did he lag behind Branson.

The position of Dr. Greeth, while equally tacit among the seven, was far more subtle. Only Branson—and, possibly, Folee—recognized the fact that he was the *grand vizier* of the group. Not a leader—he could never be that—but a man who could be relied upon to think a problem through and give sound advice.

Elissa Krand viewed the whole thing with a tolerant smile. She looked at the entire proceedings as though it were childish play-acting by a group of mental incompetents.

The only time she looked even faintly disturbed was when Tina Darren repeated, from memory, the text of Brytell's Law.

. . . Article IV.: In such case as illustrated in the foregoing, the women must be isolated. All precautions must be taken to prevent any confusion as to parenthood.

Article V.: In the ideal situation, each female would produce at least one female child and one male child by each male. Since this will not occur in the majority of situations, it is recommended that . . .

They were seated in a small circle on the wide-bladed grass that made up the forest floor. Folee, who claimed to be an expert with a Markheim, was holding the rifle in his hands and sitting somewhat uncomfortably on the top of the four-foot stump of a native tree that had been broken off long before. The engineer kept his eyes moving around the surrounding forest, but he was listening to every word that was said.

Branson, too, was watching. Not the forest, but the faces of Darren, Elissa, and Della.

Brytell's Law had been formulated centuries before—presumably by a man named Brytell—as the rule for human survival on an alien planet. Survival, not for the individual, but for the race.

Tina Darren's voice went on. As

she approached Article XIV, Branson watched carefully.

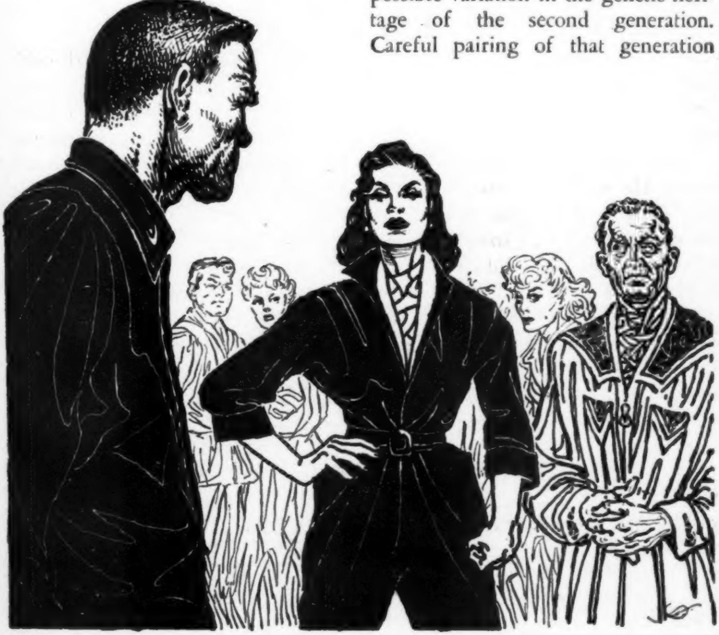
Della Thorn's face had not changed since the recitation had begun. There was fear behind the rigid mask of her beautiful face. It showed in the eyes and in the faint trembling of her chin. Even the Fourteenth Article didn't cause any change in that mask.

Rob Darren had been looking at the ground while his wife recited, but the Fourteenth Article made him look up. There was pain on his face, and a faint, seemingly undirected anger.

Elissa Krand had been looking irritated, as though the whole recitation had been too boring to waste time with, and Article XIV did nothing except cause her to flick a glance in Branson's direction. Branson couldn't quite fathom the expression in that glance.

Theoretically, three men and three women (Dr. Greeth could be excluded from the computations) could produce eighteen children—one male and one female from each possible pair.

If the ideal situation worked itself out, there would be the maximum possible variation in the genetic heritage of the second generation. Careful pairing of that generation



would insure the maximum possible variation in the race that would inherit the planet.

But during that time, the standards of monogamy, of marital fidelity, would have to be temporarily shelved. When the survival of the race is at stake, individual comforts and morals have to be pushed aside.

Article XIV of Brytell's Law covered that area in detail—the timing, the planned rotation, and the choices.

When Tina Darren had finished her recitation of the whole Law, she simply nodded and then went over and sat down by her husband.

(*I've got to quit using that word,* Branson thought. *There are no husbands and no wives here. The marriage was dissolved when the* Generatrix *blew her guts.*)

Branson stepped to the center of the circle.

"You all know it, I'm sure," he said firmly. "It's the Law that has populated the galaxy. It applies to First Colonists and shipwreck survivors alike. No one—I'll repeat that —*no one* is exempt from it.

"We're a small group—very small. We'd have better chances if there were thirty of us or more. But we'll have to do the best we can with the genetic material we have to work with."

He looked around at them, watching their expressions.

"In a larger group, lots would be drawn for pairing. With us, that procedure is neither desirable nor necessary. At least, not until the first Switch Time. Tina and Rob will have their chance; I see no point in breaking up that combination before the two of them have had their opportunity to produce.

"That only leaves two possible sets of pairing for the remaining four."

"What about Dr. Greeth?" asked Tina suddenly.

Greeth smiled his old smile. "I am as susceptible to feminine wiles as the next man, my dear," he said dryly, "but I'm well aware of my limitations."

Tina flushed. "I'm sorry."

Greeth's smile became even wider. "Believe me, my dear, so am I. Pardon me—go ahead, Mr. Branson."

Branson suppressed a grin. "As to the other pairs, I think—"

Elissa Krand said: "Just a moment. Are we to have no choice in the matter? Are we cattle?"

"Just whom do you mean by 'we,' Miss Krand?" said Branson.

"Why . . . why, me, and . . . Miss Thorn."

Peter Branson took a calculated risk. "Let's hear from Miss Thorn on that. Della, if you had a choice between Mr. Folee and myself, which—"

"Now wait!" Elissa shouted. "I have a right to pick, too!" Suddenly, she leveled a finger at Branson. "And I pick you!"

Branson looked at her sternly. "Let Miss Thorn finish! Della?"

She had buried her face in her hands. A tremor shook her body. "It doesn't matter," she said in a muffled voice. "It really doesn't matter."

Elissa Krand smiled her infuriatingly arrogant smile. "That settles it, then?"

Branson sighed. "Miss Krand, for your information, it was settled hours ago. You just happened to make the right choice."

There were, of course, other things to decide, other matters to attend to, other things to do.

Folee was a construction engineer, so the designing and construction of shelters was up to him. Wood, in spite of its antiquity as a construction material, was still used in one form or another throughout the galaxy. And Folee was familiar enough with it to be able to estimate its strength merely by flexing smaller branches with his powerful arms.

According to law, the planet was automatically named Generatrix, so that any later expedition could trace back and find out what ship had carried them. Once named, the planet would become a part of whatever dialect eventually evolved in the coming centuries, and thus be preserved. Branson thought it would be fitting to hold a dedication ceremony, giving the planet its name officially.

Afterwards, the individual duties of each member were assigned. Dr. Greeth and Folee had their work cut out for them already. Surprisingly, Della Thorn announced that she had as much knowledge of wood as anyone—she had been an interior decorator on Aljebr III—and insisted on helping Folee work the native material. She would make chairs and tables and beds.

Tina Darren could cook well enough to make palatable food out of the concentrated synthetics in the emergency ration locker of the pilot boat, so Branson appointed her head chef.

Darren simply said: "Give me a gun. I'm going hunting."

"Hunting?" Branson lifted an eyebrow. "Do you know anything about it?"

"I know how to handle a gun," he said. "Aside from that, I know nothing more about the native fauna than you do. But we'll have to have protein eventually."

"What planet are you from?" Branson asked suddenly.

"Cordex."

Branson nodded and gave him one of the Markheims. Cordex was one of the newer worlds. That accounted for Tina's knowing Brytell's Law so well, and her ability to cook. And it accounted for Darren's queerly conflicting actions.

The others had started planning their work—Folee got out the power cutters to show Della Thorn how to use them on the trees; Tina helped Darren get into the single suit of space armor on the pilot boat, helping him adjust the size so that it was reasonably comfortable and would protect him from anything that might decide he was good eating; Dr. Greeth began checking the medical supplies, laying them out and making an inventory.

Elissa Krand was leaning back

against the big log, looking at the sky. She had produced a perfumed cigarette from somewhere and was smoking it lazily, watching the white plume of smoke drift up in the still air.

She hadn't volunteered a thing. Branson had suspected she wouldn't, so he had waited until the others were busy before he approached her.

"Well, Elissa? What can you do?"

She looked up at him in annoyance. "Who gave you permission to use my first name?"

"I did." Branson kept his voice level. "You're my woman from now until the first Switch Time. I won't call you Miss Krand."

"I'm not your wife!" she blazed. "You have an almighty arrogance! I'm not used to being spoken to in that fashion!"

Branson fought down a desire to boot her. "All right. You're not my wife. Whatever you are, I'm going to call you Elissa, in preference to a lot of other things I could call you. Meanwhile, I asked what you can do? Or do you feel that you need make no contribution to our survival?"

Her jaw muscles tensed for a moment, then relaxed. She looked away from him. "I was trained in manipulative economics. I run corporations. Want to help me organize one here?"

Branson ignored the sneer in her voice. "Later. We may have need of that eventually." He didn't really think so, but he wanted to placate her. "Meanwhile, there are more immediate problems. Know anything about fabrics?"

She looked up at him again, and this time, there was an almost pathetic and very childlike expression on her face.

"I used to design clothing," she said. "Just for fun, but I was very good at it. Of course, I didn't do the actual work, but I made the patterns."

Branson nodded. "Good. You've got yourself a job. The clothes we have aren't going to last forever. I'll be willing to bet that Tina knows something of the sewing end of the job. Get together with her and see if you can come up with some ideas."

The arrogance came back into her face. "That little barbarian? What would a girl from Cordex know?"

"She can cook," snapped Branson. "And keep it in mind that we're all barbarians now, as far as our living conditions are concerned."

Again her jaw muscles tightened, and she ground the cigarette savagely into the grass. "You're not a barbarian, *Mis*ter Branson—you're an uncouth savage."

She got up and walked away toward Tina.

Rob Darren came over to him, leaving Tina to talk with Elissa. Darren was clad in the space armor, which gave a certain stiffness to his movements, but he could move in it easily enough.

"I think this will do, Chief," he said. "If something too big comes at me, I'll be squashed, but I don't think any claw or tooth can get at me."

Branson nodded absently. "It'll keep the smaller pests out, too. By the way, what's this 'chief' bit?"

Darren looked puzzled for a moment, then grinned. "Oh. We use it on Cordex. It just means that you're the head man—the boss. Do you mind? I mean, is it all right?"

Branson grinned back. "Not at all. It's an honor." He looked toward the west, where the orange ball of the primary was moving toward the horizon. "It's getting late. We'll all have to be in the pilot boat by nightfall. You won't be going hunting for several days yet; we have to get things straightened up here, first. Tomorrow, we'll start building houses and a stockade."

Darren nodded. "If Folee will show me how to wield one of those cutters, we can get things done fast. But I want to get out in that forest as soon as possible."

"You will," said Branson. "You will."

The question of food came up early. Were the native proteins and polysaccharides edible? Some of them weren't, that was a statistical certainty; some would sicken and some would kill. But were *any* of them food?

Dr. Greeth appointed himself a one-man testing lab. In the first few days, while the houses and the stockade wall were going up, the doctor prowled around in the nearby forest, picking berries and digging up roots. He came into the kitchen of the pilot boat one morning with a load of purple, melonlike globes in his arms.

Branson was sipping hot tea from a cup while Tina was fussing over something at the stove.

"These are for breakfast tomorrow," said Greeth.

Branson looked at the purplish things and then frowned a little. "Aren't you running the chance of poisoning us all?"

Greeth smiled a little and shook his head. "I ate part of one two days ago. Yesterday, I ate two whole ones, just to make sure."

Tina laughed. "I wondered why you weren't hungry at lunch."

"Why'd you take the chance?" Branson asked.

"Somebody had to," said Dr. Greeth. "I'm pretty much expendable."

Tina sniffed. "If you ask me, I think we ought to try the native stuff on Elissa. Nobody'd miss her."

"What's the matter now?" Branson asked.

Her laugh was sharp. "She thinks she's a clothing designer."

"Isn't she?"

"Oh, sure. That is, if you gentlemen feel like strolling about Generatrix in filmy party dresses. That's all she knows how to make. I asked her about something a little more practical, and all I got was a sneer. The woman is impossible."

"Not impossible," corrected Dr. Greeth. "Not even highly improbable. Just neurotic."

"That's no excuse," said Tina. "Della's neurotic, too. Men—all men—scare her." She flashed a grin.

"But being neurotic doesn't keep me from liking her."

"There's one difference," said Dr. Greeth. "Della knows she's neurotic; she doesn't blame her troubles on others. Elissa is convinced that all her troubles are someone else's fault."

"Is she still designing party dresses?" Branson asked.

"I don't know," Tina said. "After I spoke to her this morning, she called me an uncivilized little snot and walked off."

Branson finished his tea and stood up. "I'll go talk to her," he said with a sigh. He went out looking for Elissa Krand.

Wonder of wonders, she was working. Well, not exactly working; she was holding a basketful of pegs while Folee and Darren were driving them into the siding of one of the new buildings. None of the three saw Branson approaching, and he stopped a little ways off to watch.

She was posing, looking as seductive as possible in the thin silon dress she was wearing. Folee and Darren were grinning at her and holding an animated conversation. The scene was just a little too amiable to suit Peter Branson.

"Elissa, come here a minute," he called. "I've got some work for you."

She looked around, but didn't move. "I'm busy," she said. "I'm working."

Folee and Darren became silent and gave their attention to their work.

Branson's eyes narrowed. "Come here," he repeated.

An expression of anger crossed her face. It passed rapidly, but there was still hostility in her eyes as she walked toward him.

"Just who do you think you're pushing around?" She asked in a taut voice as she came up to Branson.

"I'm not pushing anyone around —yet," Branson said. "I want to talk to you."

"I haven't time for idle chitchat," she said. "I'm not the head loafer around here." She turned and started back toward the partly finished house.

Branson reached out a brawny arm, grabbed her shoulder, and spun her around. "Now, you listen here, Miss Snotty," he said through clenched teeth, "I'm not averse to slapping some sense into that head of yours."

"How brave of you," she said coldly. "All right. You wanted to talk. Talk."

"I have a job for you," Branson said tightly. "It's one I know you can handle. Even a simpleton like you can learn it. Get out of that silly dress and put on a jumper."

She just stood there, glaring.

"Come on," he said, "get dressed. We're going to get you a spade. The waste apparatus in the pilot boat takes too much power; we're going to shut it off and dig slit trenches."

For a moment, the shock in her eyes covered everything else. Then the hostility returned. "You're *crazy!* Do you think I'm a common digger robot? Do you? When the rescue ship comes, I'll make you sorry you ever suggested such a thing!"

"We don't have any digger robots," said Branson hotly. "And there isn't going to be any rescue ship. Get that stupid idea out of your mind. Now go get on a jumper and do as I say!"

"I'll do as I please, when I please!" she snapped.

Even Branson wasn't absolutely sure how it happened. Something triggered in his brain, and a flood of adrenalin surged into his blood. His left arm came up of its own accord, and his open palm cracked against the girl's cheek. The force of the blow threw her off balance, and she fell to the ground.

Branson looked down at her, his brain clearing rapidly.

She was dazed at first, then tears came into her eyes, and she shook with barely controlled emotion.

She didn't protest when he helped her to her feet; she didn't say anything. The shaking stopped, and she just stood there, her tear-streaked face looking waxy in the greenish light.

"You didn't have to do that," she said at last.

"The hell I didn't," said Branson coldly. "Now go get that jumper on; we have work to do."

Elissa Krand worked. She had to be driven and watched, as though she were a work animal, but she did what was required of her.

At last, the houses were finished. There were three small cabins for the couples, and a smaller one for Dr. Greeth which doubled as clinic and first-aid station.

In addition, there was a storage shed where Folee had put up some lumber for aging. He had warned everyone that the green wood from which the sheds had been built would likely warp eventually, and he wanted seasoned wood to replace the green.

Della Thorn had done wonders with the furniture. Instead of using green wood, she had made use of fallen branches. Each cottage was furnished completely with rough-hewn, but tightly made chairs and tables that had a rustic beauty of their own.

On the evening of the day the houses were finished, Branson ordered a celebration. All of them had slept in the pilot boat up to that time. The party was a sort of wedding supper.

It was to be a real occasion, so Dr. Greeth presided. He even mixed a small amount of medical alcohol with a little fruit juice concentrate from the rapidly diminishing supplies that had been stored in the pilot boat.

"It may not taste like wine," he said, "but it'll have to do. A toast, ladies and gentlemen, to our new village!"

"What'll we call it?" yelled Folee. "A village has to have a name, you know."

"How about 'Greeth'?" asked Della Thorn in a small voice. She looked frightened, but she was putting on a good face.

"Or 'Branson'," chimed in Tina.

Greeth started to say something, but Branson stood up. "Wait a second! I've got an idea! We'll call the planet Generatrix so that future explorers who find our remote offspring will know what ship we came from. By that time, we'll have cities all over the place. I suggest we call this place 'Landing', so they'll know where we landed. What do you think?"

Darren laughed. "How do we know there'll be a city here by then?"

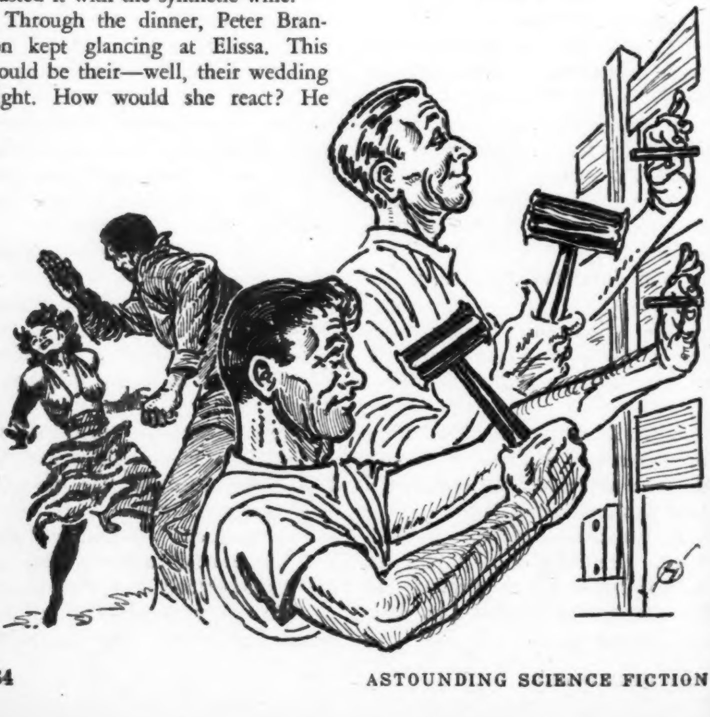
"There will be," said Folee positively. "We're only a little ways from the river, and it's definitely navigable. This is a pretty good site for a city. Anyway, I second the motion."

So they called it Landing, and toasted it with the synthetic wine.

Through the dinner, Peter Branson kept glancing at Elissa. This would be their—well, their wedding night. How would she react? He hadn't been kind to her, he knew that. He'd slapped her hard once, and cuffed her around a couple of times since. And whenever she looked at him, there was hostility in her eyes.

He wasn't the only one who'd fought with her. Both Della and Tina had engaged in hair-pulling, clawing rows with her over relatively minor incidents.

It didn't seem to bother her, though. At the party, she was absolutely charming. She knew how to handle herself in a situation like that.



It was as though being at a party cut in a mental circuit that made her behave as a gracious hostess should behave. She was especially pleasant to Branson, and he hardly knew how to react, except to retaliate in kind.

Actually, the only jarring note in the party was the all-pervading fear in the eyes of Della Thorn.

The following day, Rob Darren went out hunting. All of them had seen the heavy-footed herbivores that occasionally wandered through the forest. The animals ignored the humans for the most part, but they never came too close to the clearing.

"It's time we got some fresh protein in," he said as he climbed into his armor. "There isn't a bit left in the locker."

"Yes, there is," Tina said as she helped him close the magnetic clasps. "I've been saving it."

"You mean we've been going without when there was plenty?" he asked in mock anger.

"I didn't say there was plenty; there's enough for one more meal. Now go out and get us a roast."

Branson who had been listening to the repartee with a grin on his face, handed Darren the Markheim. "I'll keep in touch over the radio. If anything happens, yell. We'll have someone monitoring the receiver at all times, and we'll record everything you say, so watch your language."

"I will. Gimmie my lunch basket, cutie-pie." Tina loaded the provisions pack on his back. He shrugged a little to make the harness more comfortable, then trudged off into the forest.

"Remember," Branson yelled after him, "be back within twenty-four hours."

Darren turned and waved. "I'll remember, Chief. So long." And then he disappeared in the green depths of the forest.

Nearly eight hours later, Branson was sitting at the communications desk of the little pilot boat, listening to the noises coming over the speaker. There was almost a dead silence now; Darren was lying in wait for something. He'd found an animal path, and he wanted to see what sort of brute used it.

Tina came in, anger blazing in her eyes, her mouth thin and tight with fury.

"Has Rob eaten yet?" she asked.

Branson looked down at the log. "Yes. Once. About two hours ago; Dr. Greeth was listening then."

"Can I talk to Rob?"

"He's busy now. What's it all about?"

Tina took a deep breath. "Someone took the last of the frozen steaks. I put one of them in a sandwich and put it in Rob's pack; I was just wondering if he'd found it."

"How many steaks were there?" Branson asked.

"Five, counting the one I gave Rob. Not big ones, just small sandwich steaks. But they were the last. I was going to make a hash out of the remaining four and split them among the six of us. Now they're gone."

Branson clamped his lips together tightly, then thumbed the switch on the voice pickup. "Darren."

"Yeah?" A whisper. "What is it?"

"Was there a steak sandwich in your lunch?"

"Steak?" The whisper was puzzled. "No. Why? What a thing to bother me with now! I've got one of those big lubbers almost in my sights, but if he hears me, he just might decide to head for the hills."

"O.K. Forget it. Nail that beast."

"O.K., Chief."

Branson cut off the voice pickup so that Darren couldn't hear what was being said.

"Take over listening, Tina," Branson said tiredly. "I'll go take a look around."

Somehow, he had known he wouldn't have to look far.

Elissa was sitting at the desk in the cabin they shared together, sketching fluffy, impossible dresses. She didn't look up when he came in; she kept sketching until he spoke.

"Elissa."

Her eyes looked at him and widened in innocence, and a soft smile came over her face. "Yes?"

He kept his voice steady, his face free of emotion. "Do you know anything about the steaks in the food locker?"

An angry frown came over her face. "I certainly do. I was going to speak to you about them. We haven't had any steak for days now. That little snippet, Tina, has been holding out on us. And then, this morning, she sneaked one out and made a sandwich for her husband."

Branson nodded slowly, trying to find words. Maybe she was right, in her own twisted way. Maybe she really couldn't understand why Tina had been stretching out the protein. Maybe she couldn't understand why Rob needed and deserved a little extra something.

"She ought to be punished for a trick like that," Elissa continued hotly. "Feeding her stupid husband and herself the best food while we have to get by on pap."

"Do you know what happened to the steaks, Elissa?" Branson asked. "Did you hide them, or something?"

She smiled a little. "No. I ate them. They were very good."

Branson reached out and grabbed her.

Six more days passed. Darren came back empty-handed from his first attempt to hunt the big beasts. Something—a blue-furred carnivore of some kind—had scared off the one he had been stalking, and he hadn't been able to find another.

Branson's right hand was badly swollen for a day or two afterwards, but even on the sixth day, Elissa Krand was still being careful of how she sat down.

Branson had smoothed over the theft of the steaks as best he could, and the others realized that Elissa had been informed of the error of her ways in no uncertain terms, but no one was really satisfied, especially Peter Branson.

Damn it, what made the girl tick?

On the sixth day after the incident, Folee asked him a rather personal question.

"How are you getting along with that self-centered feline, Chief?" Folee had picked up the habit of calling him that from Darren.

They were standing in the middle of the clearing, building a pit out of rocks. The power in the pilot boat was dwindling; eventually, they'd have to cook over an open wood fire.

Branson heaved another rock into place and mopped his brow with a thick forearm. "She accepts me," he said.

"Is that all?" Folee looked incredulous. "She seemed to like you well enough to pick you out. Of course, the way you've been treating her might—"

"No, no," Branson interrupted. "It's not that. She's neither warm nor cool. I'm just something that has happened to her—like an act of God or something. That's all. How are things with you and Della?"

It was a full minute before Folee answered. At long last, the words came, as though a dam had broken. "Nothing has happened yet. Not a thing. I'm beginning to suffer from congenital frustration, if you follow me."

Branson allowed himself a look of surprise. "What seems to be the matter?"

"Scared."

Branson cursed softly. "We can't have that. We can't. The only way a second generation can pan out properly is to get as many different genetic patterns as possible. You've got to do something."

Folee grinned suddenly. "Don't worry. I told her I'd give her a week to get used to the idea. That week is up tonight."

"Oh? Think she'll quit being stubborn?"

"If she doesn't," said Folee flatly, "I'm going to beat the daylights out of her."

Branson nodded and silently eased another stone into place.

Rob Darren came back that afternoon from his third hunting trip. This time, he was carrying a Markheim over one shoulder and a haunch of meat over the other. He looked tired, but happy.

The animal had been too heavy to drag all the way back to camp, so he had simply hacked off a rear quarter and suspended the rest of the carcass from a tree branch. If predators didn't get it, it might be possible to go back after the remainder with the little hand truck and some extra help.

"It looks as though I'll have steak tonight, Tina," said Dr. Greeth, smiling. "But please—make it a very small one, and very well done."

Tina Darren prodded the bloody haunch on her kitchen table with a dainty forefinger. "It looks a little tough. I'll chop it fine for you." She grinned at her husband. "Couldn't you have shot a tender one?"

"What did you want me to do? Pinch it first?"

"You might have tried."

The following morning, Branson sensed a faint uneasiness at the breakfast table. They were still eating in the pilot boat until the fireplace outside was finished.

It didn't take him long to spot the reason for the odd atmosphere. Folee had a placid look on his face as he cut into the purple melon on his plate, but when he caught Branson's eye, he flashed a grin that was both wry and rather sheepish. The side of Della Thorn's face was a trifle swollen and very faintly purplish, and she had an odd expression that Branson couldn't quite translate.

"Well," said Dr. Greeth, patting his small paunch, "unless I soon feel much worse than I do now, I can pronounce the swoose to be an edible animal."

"Swoose?" asked Folee.

"From the taste," Greeth explained. "Half swine, half moose."

"I didn't know you were acquainted with Earth animals," said Branson.

"Are they Earthies?" the doctor asked in some surprise. "I didn't know that. We have both of them on Viona. Imported early, I suppose. Viona's an old planet."

Branson frowned. "I can see importing hogs, but not moose. They're not a domestic animal."

They compared notes, and came to the conclusion that the swine on Viona were indeed imported Terrestrial pigs, but the moose in question was a native animal that had been given the name because of a real or fancied resemblance to the Earth animal.

The conversation was only idle chatter, but it had served to keep everyone's mind off their more pressing problems.

Until, that is, Elissa Krand, said: "Must we discuss filthy animals at the breakfast table?"

No one said anything, but they all thought plenty.

That evening, swoose steak was the entrée, and Elissa Krand refused to touch hers.

"I don't think I care to watch you eating it," she said with distaste as she rose from the table. "You can have mine; I'll stick to food from the locker."

"I think she's dangerous," said Branson. "What's your opinion?"

"My opinion?" asked Dr. Greeth. "I'm not sure. She's hard to figure. I'm not a psych man; I'm a surgeon."

They were sitting in the small cabin that had been built for the doctor and his medical supplies. Branson was hunched up on the edge of the cot, while the older man was leaning back in one of Della Thorn's chairs.

"She stole some more food from the locker, you know," Branson said. "She refused to eat swoose, so I told her that was too bad, that she'd get no more than her share from the emergency rations. So she stole."

"Did you paddle her again?"

"No," said Branson dully. "It

doesn't help. All she does is threaten me with arrest when the rescue ship comes. She really doesn't believe one is coming, but she has to threaten. I wish I knew more about her background."

"I know a little," the doctor admitted. "Her father had money—plenty of it. Too much of it, maybe. He was a pretty big man on Taweetha, from what I hear. Elissa inherited it all when he died some years ago.

"The local government on Taweetha isn't too strong, and it isn't above corruption. With her money, Elissa could get away with almost anything."

"Spoiled brat?" Branson asked. "You'd think what she's been through here would have taken that out of her."

Dr. Greeth shook his head. "Not likely. She needs psych treatment, I should think."

"Just because she thinks she's Queen of the Universe?"

"Partly," agreed the doctor, "but that's not the whole picture. She wants to be admired and kowtowed to, and she wants to have her own way, but lots of little girls have thought that way during their adolescense. Most of them learn better."

"What about Elissa, then?"

"Well—" The old man smoothed a palm over the top of his thinning white hair. "Put it this way; you've punished her, haven't you? And so have the rest of us, in one way or another, eh?"

Branson nodded.

"Has she changed her attitude one whit?" the doctor asked. "Does she still give you back-chat, and still steal food, and heaven knows what else?"

Again Branson nodded. "There are times when I feel like popping her with a closed fist."

"So do we all," said Greeth. "But it won't do any good. Look at Della Thorn."

Branson looked surprised, and Dr. Greeth patted the air with a lean hand. "No, I'm not changing the subject; I'm trying to give you data to work with."

"All right; what about Della?"

"Della can learn. Folee clouted her a while back, and forced her to learn something she was psychologically incapable of learning by herself."

"You've talked with Folee?" Branson asked.

"I have. Della had to learn her lesson in the worst way possible—by force. Folee didn't cure her of her fear; don't ever think that. But he did help her to learn to live with it by giving her something to fear even more. She learned.

"But Elissa Krand won't—*can't*—learn. She accepted that blow from you as something that just happened. You are an outside force over which she has no control, therefore, it's not her fault if you hit her. Nothing is ever her fault. She can't do anything wrong, and if you think she did, it's because you are mistaken. Naturally, she's not responsible for your mistakes."

"How in the devil did she ever get along on civilized planets?" Branson asked in amazement. "She couldn't have acted like she was here."

"Her behavior differs only in intensity, not in kind," said Dr. Greeth. "She didn't steal because she didn't have to. On Taweetha, she could get almost anything she wanted *without* stealing. She was continually surrounded by a buffer system of protectors and sycophants who made sure that nothing harsh ever came her way. Now all that's gone, but she can't even learn that it has gone; she expects *us* to toady now."

"But what are we going to do with her?" Branson asked. "We don't know what she's going to pull next. I wish I could keep her locked up."

"Well," said Greeth with an impish smile, "you could begin by taking her shoes away from her."

The group had been on the planet for three months when Folee came with the news.

Branson was in the midst of a violent quarrel with Elissa when the knock came at the door. They both became silent, and for a moment all they could hear was the heavy patter of the rain on the roof. Then: "It's me! Folee!"

"Come ahead," Branson said.

Folee, dripping wet, pushed open the door. There was a wide grin on his craggy face. "Got news," he said.

Elissa gasped. "Rescue? Has a ship come?"

The grin on Folee's face faded a little. "Oh, no. We can give up on that, you know. No, this is even better news. Della's pregnant."

It was an event that called for a celebration. In spite of the rain, everybody trooped over to Folee's house as soon as the word was passed around. Dr. Greeth, having verified the diagnosis to the best of his ability, tapped the keg of medical alcohol and made a punch from the juice of a little green berry that grew prolifically in the nearby forest.

Della Thorn looked both pleased and proud. She was the first. Folee looked even prouder.

Dr. Greeth passed around the green-tinged punch and everyone toasted Della and her baby. Then she proposed a toast to Folee. Then everybody began proposing toasts to everything and everybody else.

Della was having the time of her life. In the limelight, she seemed to glow, which made her even more beautiful than she had been. She was at the peak of her life, the pinnacle of her existence. For that one night, she was ecstatically happy.

Two days later, she was dead.

There was never any question of who had committed the slaughter. Tina Darren was found at the edge of the forest, a knife wound in her back. Della Thorn was slumped over her bed in Folee's house; she'd been stabbed from the front, once in the abdomen, and once in the heart.

Elissa Krand had locked herself in the pilot boat with a Markheim rifle while four men stood outside, impotent with deadly fury, and murder in their eyes.

"I'll kill her," Folee kept saying

over and over again. "I'll kill her. I'll kill her."

Darren, too, was repeating himself. "Why Tina? Why did she kill Tina?"

"How did it happen?" Dr. Greeth asked Branson.

"I was in my shack," Branson said dully. "Folee and Darren were out picking melons. You were in the clinic cabin. Elissa must have lured Tina into the forest somehow, then gone after Della.

"Folee found Della first, then we all started looking for Tina and Elissa. We found them." His voice seemed to be drained of all emotion.

"There's no question of punishment, of course," Dr. Greeth said. "We'll have to tell her that she has nothing to fear from us."

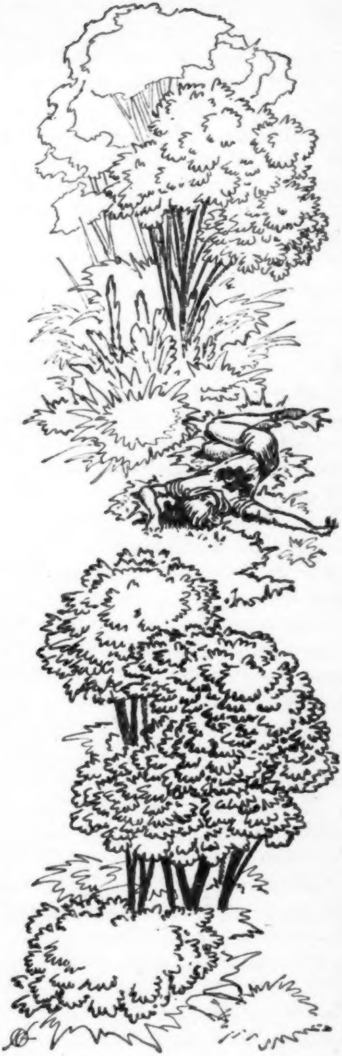
Folee heard him and turned savagely. "Oh, no? I'll personally strangle the monster with my bare hands."

"Not," said Darren calmly, "if I get at her first."

Dr. Greeth shook his head slowly. "No. You can't do that. She's the only woman we have left." After a moment he added: "And she damn well knows it."

Elissa didn't come out of the pilot boat for twenty-four hours. There was no way of talking to her, not in the soundproof shell of what had once been a spaceship. For a full day, the four men fought it out among them. They buried Tina and Della and then argued some more.

"Brytell's Law!" Folee snarled jeeringly. "Who gives a damn about



that? You don't think *I'd* touch that inhuman killer do you? Or Darren? I say kill her. Kill her and let someone else populate the planet."

"Kill her and you'll kill yourselves," Branson said flatly. "Do you know what would happen? Four men—alone on a planet for the rest of their lives. How would we end up? What purpose would there be to our lives?"

"Sure," snapped Darren. "That's your idea. Because she's your woman."

Dr. Greeth said: "Let's go over to Branson's house and sit down and talk like sane men. We can leave the door open so we can see the pilot boat. I don't think she'll try to get away, but we can see her if she does."

All that night they argued. Only slowly did the immediate emotion fade from Folee's and Darren's minds, to be replaced with thoughts of the future. It wasn't a pretty picture, whether Elissa Krand lived or died, but it was obvious that she must live.

The next morning, she appeared at the air-lock door of the pilot boat, carrying a Markheim in her arms.

The men came slowly out of Branson's house, not taking their eyes from her for an instant.

"Well," she called, "have you made up your minds?" There was a haughty insolence in her voice.

Folee stopped walking.

"Careful, Folee," whispered Dr. Greeth. "Watch yourself."

"You don't dare kill me, you know," she called in her cool voice.

"We know," Branson said. "Don't worry. You're safe."

"What are you going to do?"

Surprisingly, it was Darren who answered. "Nothing," he said in a dead voice. "There's nothing we *can* do. Nothing."

She smiled softly. "There's been no loss, really. I can have children—I know; I've had two already. If Branson isn't man enough to be a father, at least we know that Folee is."

None of the men said anything.

"But I want to warn you," she went on, "I don't intend to be treated the way I have been. I won't be locked up or pushed around. You'll treat me as I want to be treated. You'll have to."

"We know," said Folee. "We know."

"I know you do," she said. "I'm going to stay in here for a while. You can bring me food. I'll let you know when I want one of you." She smiled again. "And you can all behave yourselves." Then she went back in and closed the door.

She had them. They couldn't do a thing. They couldn't force themselves on her, and they couldn't do without her. If she mistreated them, they had to take it; if they mistreated her, she could easily abort any pregnancies—and she was perfectly capable of it.

A month later, Branson came back from the forest with a haunch of swoose over his shoulder and a bloody pelt from one of the blue-furred predators that prowled the region.

Folee was hammering crosspieces into the stockade. He had started to strengthen it when one of the animals had begun sniffing around the doors at night.

"I think I got our pet," Branson said, holding up the blue pelt. "I baited a trap with part of a swoose and then waited. He walked right into it."

"Good," said Folee. "I wish we could ged rid of all man-eaters that way."

"How's the Queen Bee?" Branson asked.

Folee spread his hands in a gesture of futility. "Same as ever. She said she misses you. You've been gone for three days."

Branson spat. "Is she pregnant yet?"

"No. Not yet."

"If she doesn't pan out as a prospective mother," Branson said slowly, "we may kill her yet."

"No," Folee said tiredly. "No we won't. We'll keep hoping. Besides—I don't think I want to kill her anymore. But I can't take much more of this."

"None of us can," said Branson.

Dr. Greeth, who up to now had said nothing, suddenly sucked in his breath sharply, and stood rigid. Folee and Branson reacted automatically, instantly sweeping the direction Greeth was facing with alerted weapons.

"What is it, Doc?"

Dr. Greeth relaxed and shook his head, and smiled slightly. "No!—No attacker. Just an idea. The Queen Bee. I think . . . I know exactly how to give our Queen Bee precisely what she has been demanding, and has fully earned. She shall fulfill the role she selected—completely."

"She wouldn't fulfill anything; you know it, and you know we can't make her," Branson said harshly.

"This can't go on, you know. It just can't work out, no matter what Elissa may think."

"I know," Folee said, "and that's one thing that worries me. One of us is going to take a real poke at her one of these days."

"Worse than that," said Greeth tightly. "If she ever has any children, how are we going to protect them from her? She's killed twice, she can kill again."

"I know that," Branson agreed. "So . . . what can we do?"

Dr. Greeth told them.

The trial of Elissa Krand was held the following day. Folee and Darren had been sent to get her after they'd heard what Dr. Greeth had to say. She didn't bother to struggle; she just laughed at first, and then told them that they'd better be good little boys—or else.

Darren floored her with a fist, and Folee had to hold him back to keep him from hitting her again.

Branson acted as presiding judge. It wasn't a trial in any sense of proving guilt, but it was necessary.

"This is ridiculous," Elissa said. "You're acting like a bunch of children. A trial! What a farce! You're play-acting." But there was a touch of fear in her words.

Branson, sitting behind his desk, said: "Sit down, Miss Krand." He kept his voice even. "Sit over there. The sergeants-at-arms will watch you. And keep quiet."

"Sergeants-at-arms!" She laughed. "So you're taking titles already. I suppose I ought to address you as 'Your Honor'?"

"That's right," snapped Folee. "And His Honor said for you to keep quiet."

"The purpose of this trial," said Branson in a dry voice, "is to determine the guilt and, if any, the punishment of the defendant, Elissa Krand, who is accused of the double murder of Miss Della Thorn and Mrs. Tina Darren on the morning of the eighth day of Thirdmonth, Year 980, Galactic.

"The entire procedure is being recorded so that our descendants, if any, will know exactly what happened and how we handled it. It will be up to them to decide whether or not we have acted properly."

At the mention of the word "descendants" Elissa Krand relaxed a little. They weren't going to kill her.

Branson picked up the diary he had been keeping and opened it to the first page. Then he began reading from it in a careful monotone, keeping any emotion out of the words. The entire history of the colony, up to the day of the murders was read into the record. Then Branson stopped and looked at Folee.

"Mr. Darren, will you act as prosecutor?"

"I will," Darren said firmly.

"I realize that having an interested party act as prosecutor is not proper," Branson said for the record, "but we have no choice. Dr. Greeth will act as defense, because he has the only defense possible. And certainly neither Folee nor Darren could properly judge this case. Actually, none of us can. It will, as I said, be up to our descendants to judge, not only Elissa Krand, but this court and its proceedings."

He looked at Elissa. "How does the defendant plead?"

Elissa laughed again. "Don't be silly. If you're going to keep up this farce, go ahead, but—"

"How do you plead?" Branson repeated.

Another laugh. "Guilty. You know I'm guilty."

"Do you wish to make a confession to the court?"

The girl smiled insolently. "If you wish."

She gave it to them. The whole story. How she had walked into Folee's house and stabbed Della twice with a kitchen knife, how she had asked Tina to help her pick berries and had knifed her as soon as her back was turned. All of it.

And she enjoyed it. She was laughing at them. She glanced occasionally at Folee and then at Darren to see how they were taking it, but she got no satisfaction there; both men were calm and controlled now.

When she had finished, there was

a dead silence for a space of a full second. Then Dr. Greeth spoke.

"If the court please, I move that the defendant's plea be changed from 'guilty' to 'not guilty by reason of insanity.'"

"Insanity!" Elissa sounded shocked. "If anyone's insane around here, it's the four of you—not me."

"The defendant does not wish to so plead," said Branson, "but the court will take your request into account. Mr. Prosecutor, an unsubstantiated confession will not, in itself, suffice to convict the defendant. Have you any further evidence?"

"I call Mr. Cray Folee," said Darren. He was quite cool now.

Folee gave his evidence. He told how he had found Della, how he had called the others, how they had found Tina, how Elissa had acted and what she had said the next morning.

Then, in turn, Dr. Greeth, Darren himself, and finally Branson, gave their versions of the story. It wasn't proper court procedure, but they had no other way.

Through it all, Elissa sat calmly, a don't-give-a-damn smile on her face.

"It is agreed by all of us, including the defendant," Branson intoned, "that Elissa Krand actually committed the murders. There is no question of that. The only question before the court is one of punishment."

"If it please the court," said Dr. Greeth, "the defense would like to state its case."

"Proceed," said Branson.

"'Proceed'," mimicked Elissa. "My! How stuffy can we get?"

"Shut up," said Folee.

Dr. Greeth ignored her and began speaking.

"I would like to point out that it must be obvious to every man here that the defendant, Elissa Krand, is not emotionally sound. Her motivation alone shows that. Her confessed reason for this double murder . . ."

"Triple," Folee breathed softly.

". . . Is not that of a normal, sane person. Surely, then, we can not ask the death penalty." It was a purely formal statement, intended to lead into what Branson was going to say.

"On the civilized planets of this galaxy," Branson said, "the death penalty is never used. Psyching is prescribed, no matter what the motivation. Unfortunately, this is not yet a civilized planet. We have no psych men. We are only five people, alone on an uncharted planet.

"Normally, in that case, the judgment of this court would still have to be—death. We have no place here for the proper treatment of insanity.

"But this is not a normal case. For simple biological reasons, we can not —and we will not—mete out to this woman the normal punishment for her crime.

"However, there is another way. Dr. Greeth, would you explain?"

Dr. Greeth cleared his throat. "Let's just take a look at the basic tenets of this colony and of this particular case.

"Why can't we kill Elissa Krand?

Very simply, because we need her. We do not need her—or want her—as a person; the entity of Elissa Krand, warped and vicious as it is, is of no use to us. Indeed, it is a detriment to the group as a whole.

"But we *do* need her physically—as a biological engine. As a reproducing machine."

The recording machine hummed as it's electronic memory caught and held every word, saving it for generations yet unborn.

"Therefore," Greeth continued, "our object should be to find a method whereby we can destroy—kill—the entity known as Elissa Krand without destroying her body as our only instrument for reproducing the human race here on Generatrix."

Elissa quivered. All the color had drained from her face. The man was serious! "It's not possible," she said hoarsely.

"There is such a method," said Dr. Greeth, ignoring her. "It hasn't been used for centuries, except on certain animals, and even there the effect is different. It is outlawed in every civilized planet of the galaxy. But, as the court has pointed out, we can hardly call ourselves a civilization.

"Even the most inhumane methods can have their uses when all else is impossible."

"What is it?" Elissa screamed suddenly. *"You're crazy!* You can't do any such thing! *What is it?* How can you kill me without killing my body? How—"

Folee clapped a hand over her mouth. "Shut up and listen!" he snapped.

"The process," said Dr. Greeth, "is an operation called a transorbital leucotomy. A small, thin blade — called a leucotome—is inserted into the prefrontal lobes of the brain by passing it behind the eyeballs of the patient and through the nerve and blood channels—into the brain tissue itself. By careful cutting, the nervous connections of the prefrontal lobes are destroyed in such a manner that the actual thinking part of the brain no longer functions.

"What remains is, to all intents and purposes, a robot. It can feed itself—clothe itself—perform small small tasks that require no thought. But it can not think. The *ego,* to use an ancient term, is destroyed. Or, if not destroyed, at least isolated so that it no longer has any control over the body.

"Of course, the operation has no effect whatever on the genetic characteristics of any offspring of the patient.

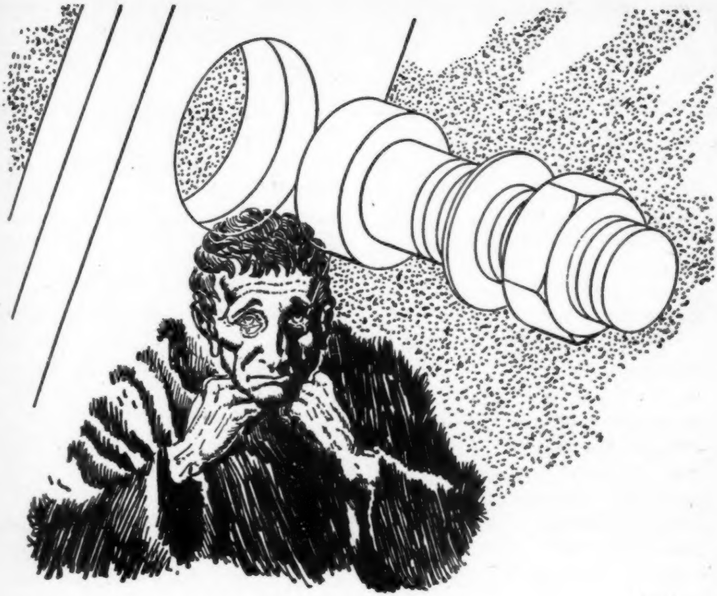
"Such an operation, gentlemen, exactly fits the needs of this case."

Branson didn't pause. He slapped the palm of his hand on the table. "This court so orders. Elissa Krand, you have heard the judgment of this court. Have you anything to say?"

Elissa Krand screamed.

One year later, the first child born on the planet Generatrix was a lovely baby girl, named Tina.

THE END



SELLER'S MARKET

BY CHRISTOPHER ANVIL

It's wonderful, *what one could do with just the power to be absolutely convincing ...convincing, that is, to other minds. The Universe is somewhat harder to convince...*

Illustrated by Martinez

CAPTAIN Nathaniel Corder, of Cryos Expedition, lay in the deep cold snow under the tracksled. He shone his light on the rapidly spinning driveshaft, then shone the light carefully back along the shaft to the universal joint. He saw that it was spinning, too.

From the darkness beside the sled, Corder heard the Sergeant's low voice. "Sir, I found some heavy wire. If the universal's broken, maybe we can fix it."

Corder blew out a cloud of frozen breath. "It's not the universal. It's another broken axle."

There was a moment of silence, then Corder said, "Divide the men up, and put them in the other sled."

"Sir, the tracksleds are overloaded already."

"That may be, but we can't leave anyone here."

There was the sound of a tailgate dropping, and Corder heard a muffled order. From the bed of the tracksled over Corder's head came a slow dragging scuffle of feet. Corder began to worm his way out from under the sled.

Now that the problem of the tracksled was no longer on his mind, Corder became conscious of his own sensations. His hands and feet were numb. His face felt deadened and chilled. The bridge of his nose ached with the cold, and he had a dull pain over the eyes. His heavy overcoat bound him without giving a feeling of warmth. When he wanted to move, he found that it took a concentrated effort to make his body perform.

Corder rolled carefully free of the sled, and got to his feet. All around him was darkness, with here and there the dim glow of a moving flashlight. The only sounds around him were the low mutter of tracksled engines, and the rustle of steadily falling snow.

One of the flashlights wavered toward him, and the Sergeant's voice said, "I got them all in, sir. But I hope we don't hit any more of those burrows."

"How badly are the men crowded?"

"Three deep."

Corder and the Sergeant waded through the snow in silence. Corder was trying to think what to do if yet another tracksled broke an axle.

The Sergeant caught his arm. "Watch it, sir. There's a burrow about here."

Corder waded cautiously forward. His boot hit a hard slippery surface and slid ahead. Corder took an awkward hasty step to recover his balance. The Sergeant stumbled and lunged forward. Corder caught him. They stepped around the dark hood of a tracksled, and Corder shone his flashlight on the door. The Sergeant pulled it open, set one foot carefully on the step, reached up, grabbed the doorframe with both hands, and clumsily heaved himself in. Corder wondered if the Sergeant's feet were as cold as his own, which felt like loosely hinged blocks of wood. He reached up, hauled himself in, and shut the door.

The Sergeant leaned forward over a faintly-humming box mounted between himself and the driver. A bluish glow from the box lit his face like a mask. "Swing a little north," he growled.

"O.K," said the driver.

The engine speeded up, there was a smell like hot rubber and the tracksled began to creep forward. Corder pushed back the sleeve of his coat to glance at his watch. The glowing dial told him that it was already 0550. The attack was to start at 0630, and the tracksleds were proving so defective that Corder wondered if they'd make it.

The Sergeant cupped his hands to blow on them. Corder worked off his mittens, undid a coat button with numb fingers, and slid his hands inside his coat under his arms. The tracksled crept through the darkness, and the snow pattered as it blew against the windshield. Corder's mind drifted back to the first day of the expedition, when he'd listened as the Colonel described the situation on Cryos.

The officers were gathered in the ship's maproom, and the Colonel, straight and spare, was standing before them.

"The background of the situation," said the Colonel, "is that we have our fleets spread thin all over the universe. We're strong nowhere, so the Outs can hit us anywhere. In their last fanatical attack, they stabbed through the region we're now approaching. During the advance, they dropped a small landing-party on Cryos, an unimportant planet of an out-of-the-way sun. A scout ship of ours was caught in the path of this Out penetration and saw the landing.

"The Outs could easily have destroyed this scout ship, but they let it get away. Since then, they have made three showy attempts to supply this little force on Cryos, and all three have been turned back without a genuine struggle."

The Colonel frowned. "Cryos, to the best of our knowledge, has no value either to the Outs or to us. Its ore deposits aren't exceptional, and it is located away from any sizable communications route. The axis of Cryos is sharply tilted, and its climate runs to violent extremes. The highest known form of life on the planet is a hardy burrowing omnivore. This creature looks like a huge bristly caterpillar, has an oversize appetite, and kept our first exploratory team in a constant state of emergency by burrowing into the stocks of supplies. Gravity and atmosphere on Cryos are bearable, but these are the only known points in the planet's favor.

"So," said the Colonel, "the Outs dropped a landing party on this place, and, ever since, they've been advertising it to us." The Colonel glanced narrow-eyed at a Manila folder lying on a table nearby. He took hold of the folder, and held it up. It was stamped in big block letters, "Top Secret."

"This," said the Colonel, "is the General Staff's answer to the problem. As you may have noticed, gentlemen, in the past three years there have been some peculiar changes in the manner of thinking of the General Staff. To begin with, they dispersed our strength on the frontiers. The Outs have punched through twice, and show every sign that they are getting ready for a new and bigger attack. When we try to warn of this, we find that we might as well try to talk through a dogged-down spacedoor. We aren't heard. The worst part of it is, if we send someone back to hammer things out with them, he vanishes into the Capitol, and comes out after a few days convinced everything is fine. I came back myself about fifteen months ago and tried to sell some kind of gibberish called 'elastic counterdefensive.' Whoever goes back to the Capitol comes out with the idea. After a few days, the sense of certainty evaporates, and it's possible to see that it's all doubletalk. It won't work. But the General Staff keeps handing down stuff on the same level, and now we come to the plan for Cryos.

"Anyone," said the Colonel, "ought to be able to see the possibility that the Outs are laying a trap. But the plan specifically prepared by the General Staff makes no mention of the possibility of a trap. It says instead, that we have taken no prisoners, and therefore this collection of Outs offers a splendid opportunity for study. We are supposed to go down and *capture* this Out expedition. We're supposed to bring them back alive and in good shape. Let me read just one paragraph:

" 'The objective of Operation Coldfeet is the capture, alive and well, of all enemy troops on the planet Cryos. To this end, the initial landing will be made at Point Q, precisely forty miles southwest of the enemy base on Able Hill. The expeditionary force will form three separate columns of attack, advance under cover of darkness and total silence along diverging routes of march, turn at predesignated points and converge upon Able Hill in a three-pronged pincer movement. This advance will be so timed that the three columns strike the hill simultaneously from the south, west, and east. The troops will immediately deploy, and halt ready to advance up the hill. The Expedition Commander will then contact the enemy and demand his immediate surrender.' "

The Colonel put the manila folder on the table nearby and pushed it away. The room was dead quiet. The Colonel said, "Anyone who can land a ship precisely forty miles southwest of a given point on the winter hemisphere of a strange planet, and throw troops out into the night in three different directions at three different rates of march through deep snow, assemble them again simultaneously at a place forty miles away, where they have never been before, and do it without benefit of any signal the enemy might pick up—anyone who can do this has *earned* the right to go out and try to make his enemies give up without firing a shot. "But," said the Colonel, "with all due respect to the people who framed this order, I think *we* had better go at it a little differently."

Corder felt a heavy jounce and a crash. He was sitting in the tracksled. The tracksled hesitated a moment, then crept forward.

"Amen," said the Sergeant.

"Keep praying," said the driver. "There's generally a bunch of burrows together."

The tracksled tilted again, climbed, and came down with a smash. There was a moment's pause, then the sled crawled sluggishly ahead.

Corder leaned forward and scraped a layer of frost from the windshield. Outside the night was fading to a dark gray, and Corder seemed to see a darker bulk far ahead and slightly to his left. He visualized the map the Colonel had shown them, with its long narrow hill in the center. The Outs had been sighted on the hill, and the Colonel had decided to land to the east, then advance toward the long east face of the hill in parallel columns of tracksleds. Each column of sleds would help the other if they were attacked en route. If not, the plan was to hit the hill to the north of its center, split the Outs into two parts, and crush each in turn.

Only, Corder thought, if that dark bulk to the left was the hill, he was too far to the north.

"Sergeant," he said.

"Sir?"

"Take a look out there."

The Sergeant leaned forward. The tracksled crawled up and smashed down. The Sergeant steadied himself, turned his head away, then looked back. "Sir," he said, "it looks like the hill to the southwest there. But it's too dark to be sure." He looked ahead, then squinted off toward the north. Then he turned and looked back to the southwest. "I don't know. It could just be heavy clouds in that direction."

Corder leaned forward and peered into the gloom. If he looked straight ahead, it seemed noticeably darker to the left. If he looked to the left, he could see nothing there at all.

Now, Corder thought, if that *is* the hill, I am off the course and will get carried right straight out of the battle entirely; and then only part of our force will hit the Outs, and we will lose. Or, on the other hand, if that *isn't* the hill, and I do swing southwest, we will probably hit the center column going west, and cause such a mess—including the possibility that they will mistake us for Outs and open fire—that again we will lose the battle.

The Sergeant leaned forward tensely and wiped off the windshield.

"Damned if I can tell," he said.

To Corder, the dark blot seemed to be gradually falling to the side as they moved ahead.

"Swing southwest," said Corder. "And if you see anything that looks like a tracksled swing west again."

"Yes, sir."

They peered ahead into the grayness and the tracksled now began a rolling motion, rising up at the right in front, then pitching forward so the left rear was up. Corder glanced at his watch. He had less than twenty minutes to get into position.

They rode for a while in silence, trying to see ahead. The sky was growing lighter, but they still couldn't be sure.

To the south, a bright white glare lit the sky. A series of orange flashes puffed out like long fingers and faded away. Then they could see the hill, tall and white, and much closer than it had seemed.

Corder felt his muscles tense. For a moment, he didn't breath.

Then the hill was swinging close, looming high above them.

In the gray light of dawn, Corder could see nothing on the hill save a smooth slope of snow.

The tracksled tilted as it began to crawl up the first slope of the hill.

"Sir," said the driver, "do you want to go up here, or farther south?"

Corder was thinking that if they went up the hill here, they would be north of the place where they should have been, but if they went south, the whole column would trail along the base of the hill, offering an excellent target, and they might still be out of action when they were needed most, But, if they could get up the hill here, while the Outs' attention was distracted by the attack to the south—

"Go up here," said Corder.

The tracksled tilted more steeply, and churned its way soggily up the slope. As the sled climbed, the slope steepened and the engine labored.

Something ticked lightly on the roof of the cab.

The engine was racing, and the tracksled was moving more and more slowly. There was a stench of burning rubber.

"Sir," said the driver, "I think this is about as far as we're going to go."

Outside, it was growing steadily lighter, and had stopped snowing.

The windshield in front of the driver starred but didn't break.

Corder reached down to a shelf under the dash, and took out a small hand comset. Then he studied the hillside. In the growing light he could see nothing but a rising sweep of smooth snow. There were no irregularities save an occasional ripple in the snow, running straight up the side of the hill and fading out of sight.

Something bounced off the hood and starred the upper edge of the windshield directly in front of Corder. The tracksled crept to a dead stop.

Corder opened the door and jumped out. His feet landed on crusted snow that broke with a crunch. He took a step, and the crusted snow at first supported his weight, then gave way, so that his foot came down with a jolt, hit another layer of crust about eight inches lower, broke through that, and jammed into a third layer that caught his heel. The crust was hard, so that when he came to take another step he had to pull his foot straight up to get it free. Corder walked in this spine-and-joint-jarring way about half the distance from the cab door to the rear of the tracksled. Then he stopped, the comset raised to his mouth to give the order, and saw in his mind just what would happen if his men started up the hill through this stuff.

The air overhead and to one side was now growing thick with things that went *Whick! Whick! Whick!* as they passed. Corder looked around for some kind of cover, and saw, thrust up here and there through the crust, what looked like the naked top branch of a tree. The stems thrust up a yard or two at an angle, and were too thin to hide a cat.

It was very plain to Corder that if he gave the order he was supposed to at this point, his men would be shot to pieces or pinned down in isolated snowholes in no time at all. The Outs would have a little brisk early-morning target practice, and that would be the end of it.

Something whacked the front of the tracksled beside him, thumped on the roof at the rear, and fell in the snow at his feet. Corder picked up a little metal cylinder with small fins set on it at an angle. The point of the dart looked like the bent end of a pin, and was covered by a thick coating that had partly cracked off.

Corder glanced at the fabric covering over the rear of the tracksleds, and knew his men couldn't stay there, either. He brought the comset close to his mouth, studied for an instant the sled's ground clearance, then said slowly and clearly. "Get your men out and under the tracksleds. Let the first few men open fire from behind the tracks. Have the rest dig out under the sleds. As soon as you can, dig connecting trenches between the tracksleds."

Corder repeated his orders carefully, heard tailgates dropping along the line of tracksleds, and made his way bone-jarringly to the rear of his own tracksled, where the first men to hit the crust filled the air with outraged disbelief, then dove under the sled.

The air was now filled with whizzing parts, and an occasional something that made a droning buzz. From under the sleds came the first sharp reports as Corder's men began to return the fire. So far, it was possible to stay here. But already one of Corder's lieutenants had reported two men hit by darts and unable to move. Moreover the Outs could be expected to bring up heavier weapons as quickly as possible, and they might, Corder thought, have tunnels already dug for the purpose of doing it unseen. Corder crawled under the tracksled and studied the hillside in the growing light. He frowned at the low ripples in the snow, running up toward the top of the hill, then realized that they were probably burrows under the snow.

Corder traced the ripples up the hill, where they vanished completely. Probably, he thought, because the burrows ran deeper there under the snow. He looked down the hill, and saw the ripples fan out onto the snow-field. The tracks of the sleds showed where they had crossed them.

Corder traced the nearest of the ripples back, and saw that it passed under the third tracksled in the line.

The men from Corder's sled were digging steadily and silently. Corder glanced back at the hill and scowled thoughtfully at what looked like a vapor rising from the snow far up the hill. Then, when his sled was connected with the one behind it, he ducked through the slit trench, to the third tracksled back. The men here, in order to move freely beneath the sled, were chopping through the side of the burrow that ran under it. With the snow dug away, the burrow looked like a giant pipe about three feet thick.

From up the hill, a shout went up. Corder turned to look out through the sled's tracks. A heavy gray fog was rolling slowly down the hillside. Corder turned back to the burrow and saw that the men had chopped a large hole into it. He shone his light inside. The burrow stretched off in both directions farther than the light would reach. The whole inside wall was rippled like corrugated iron, and roughened as if it had been stippled by thousands of stiff tiny wires.

Corder crawled in, and ordered his men to follow in single file.

Corder crawled forward as rapidly as he could, and the men hurried after him. The burrow sloped more steeply, and the corrugations deepened. After a time the muscles of his whole body began to ache. He was repeatedly thrown off balance by his long overcoat. He was breathing hard, and his lungs hurt, as much from the constriction of his heavy clothing as from the effort. On the other hand, he was warm, for the first time since he had set foot on the planet. He thought of the possibility that a grinning Out was sitting at the other end of the burrow with a box of grenades, waiting till they got good and close before rolling the first one in. Corder told himself that he had only had so many choices since he had started out, and he had tried to pick the best ones he could.

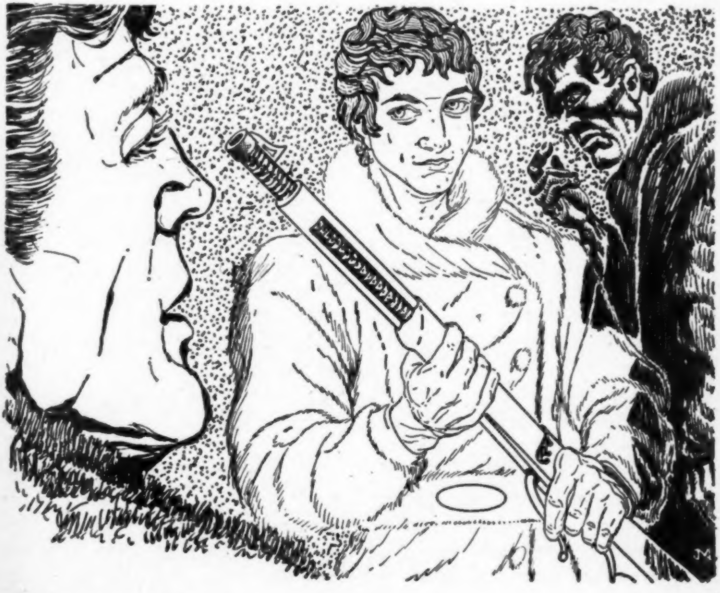
Instead of making him feel better, the thought of the fewness of the choices made him feel frustrated and resentful. He yanked forward the heavy skirts of the overcoat and thrust them through the coat's belt. He crawled ahead fast and steadily, matching his motions to the harsh indrawing of his breath.

Behind him trailed the clatter, heavy breathing, and dogged cursing of his men, laden down with their equipment, and driven by the same frustration that drove him.

It was a long way to the top. Corder had to call a halt three times, and each halt was accompanied by a bumping and a piling-up that shortened tempers to the point where fights threatened to break out along the whole length of the line. At the third stop, Corder had to calm a soldier, somewhere in the blackness behind him, who had gotten banged in the face with a rifle butt twice and now furiously announced that he would kill everyone present if it happened again.

Each stretch of the burrow was worse than the one before, as the slope steepened and accidents and bad temper piled up. By the time the burrow had begun to level out, a new source of trouble became evident. The burrow roof was beginning to get lower. Corder hit his head twice, and from the dull burst of cursing behind him, he knew he wasn't the only one. The burrow tilted slightly downward, flattened out more and more, and the corrugations grew shallower, longer, but more sharply ridged, so that they bit into his knees, which were already sore and tender, while the roof forced him down so that he had to use his knees regardless.

Corder passed the word back to come ahead more slowly. Then he crawled forward as fast as he could to find out where the burrow led. As he crawled, the cross section of the tunnel progressively changed from a flattened circle, to an oval, to a flattened oval, to a kind of wide horizontal slit that forced him to lie perfectly flat and pull himself ahead by his fingernails. By this time, the burrow



was wide enough for three men, and the concave corrugations in its floor were long and shallow, and edged almost like knives. The burrow slanted sharply downward, then sharply upward. Corder breathed a silent prayer, slid down, squeezed himself through, felt ahead, and his fingers closed around a lip of ice. He pulled himself up and came out in a dark place with a flat floor.

Corder released the safety on his service automatic, and came cautiously to his feet. He turned on his flashlight. The beam lit a pile of big, odd-looking tins, then shone on a wall of grainy snow. Corder swung the beam around, and it lit the six walls of a room about fifteen feet across. He shone the light up. The ceiling of the room slanted up from each wall to a round hole about two feet across and ten feet up from the floor. The hole extended up a little over a yard, and ended in what looked like a trapdoor. Hanging down the side of the hole, was the top end of a rope ladder. About two-and-a-half feet down from the trapdoor, the ladder ended, its ropes frayed as if they'd been cut off with a dull knife.

Corder studied the frayed rope, then shone his light on the pile of tins. The tins were about sixteen inches high, flat on both ends, and six-sided in cross section. Each one Corder picked up was roughly torn open along an edge.

Corder's men were now pulling themselves up out of the burrow. Corder had them move the tins to see if there was any other way out of the room. Behind the piles of empty cans, the men found the entrances of four more burrows. Some of the burrow entrances were deeply scratched, as if the big cans had been pulled down into them.

Corder turned around to see more of his men climbing into the room. In time, there would be about two hundred of them in here, jammed together like bullets in the clip of a gun. Corder stared up in exasperation at the trapdoor. Then he stepped to the mouth of the burrow and said, "Just one more man."

He had the men form a human pyramid under the hole. Then he climbed cautiously up, steadied himself with the rope ladder, and tried to raise the trapdoor. The trapdoor wouldn't move. Corder hit the edge sharply with a rifle butt. Then he raised it cautiously and looked out to see the backs of half-a-dozen fur-clad beings, each carrying a long slender gun. Trudging past them was a group of about fifty Earthmen, their faces blank and unseeing, their hands clasped above their heads. Corder peered cautiously around and in the other three directions saw only snow. He let the trapdoor back in place, bent down, and briefly explained the situation. "Don't move till I do," he warned, then he inched the trapdoor up.

He saw one of the Outs from the side, as the fur-clad figure bent to prod a finger into the side of a passing Earthman. The Out's face was like that of a man, but gray, and thin to the point of emaciation. His movements were very slow. Corder's sights swung into line on his head and he squeezed the trigger a little harder. The rifle jumped and the Out jerked and staggered forward.

Corder aimed deliberately at a second Out, and fired. The Out fell. For a moment, the other four stood frozen and still, then their long slender guns started to swing up as they turned. Corder fired deliberately a third time, then he heaved himself up out of the hole, sprinted hard to his left, and dove.

Whick! A dart flew over his head. *Whick!* One ticked his helmet as it passed.

Corder landed awkwardly faced in the snow, and had no time to change his position. He switched hands on the rifle, fired it left-handed and missed. He corrected his aim, took first pressure, then he couldn't move.

A solid rank of fur-clad Outs watched him over leveled guns. Their faces were pink and glowing with health and well-being. Their eyes were large and bright, peculiarly keen and sharp, and Corder felt a wave of unfitness that he should have attacked these superior beings. He felt ashamed to be human and eager to do whatever these master men might—

Crack!

The line of Outs was gone, and a thin fur-clad figure tumbled forward. From the corner of his eye, Corder could see a bulky shape heave itself up from the trapdoor, sprint to the right, and dive.

A long slender gun spun to cover him. Corder took aim.

Corder's gun swung erratically, a tiredness and weakness making his hands too feeble to hold it, too weak after the long struggle, and the insufficient food, the lack of water, and now he was so tired. No one could blame him if—

Crack!

One fur-clad figure was still standing, his long slender gun aiming toward the trapdoor where Corder could see in a swift glance that a man looked out with his eyes focused on the far distance, and his face trancelike and blank, and Corder's sights settled into line on the slender fur-clad figure, and as he squeezed the trigger his rifle bucked and his ears rang with the concussion.

The fur-clad figure bent at the knees, tipped and fell to one hand, looking at Corder with his brilliant eyes.

And Corder stumbled to his feet, half-sobbing, and ran forward to catch him, to give first aid, to—

Crack!

The figure jerked and slammed down on the snow.

Corder stood stock-still, his lungs sucking in breaths of the bitter-cold air. He was looking around, the whole scene vividly clear as he saw the still-trudging procession of Earthmen, their hands clasped over their heads, and the six huddled figures on the snow. More of his own men were climbing out of the trapdoor now, and Corder turned to tell them to spread out and— He jerked around suddenly.

Out of the corner of his eye he had seen the first of the Outs start to roll slowly over. For an instant, Corder seemed to see two things at once. The Out was slowly coming to a sitting position, and the Out was lying flat on his face.

He couldn't have sat up, Corder realized, so it must be a trick of the sun on snow, there was nothing to worry about, nothing at all— But—

Corder sucked in a sharp breath, and jerked his rifle up. He fired and fired again.

The image lying in the snow was gone, and Corder saw the Out halfway to his feet, the long slender gun in his hand. The Out sat down backwards, and the gun flew out of his hand to lie on the snow.

Crack! Crack! The men were firing again at the Outs.

Corder strode to the Out he had just shot, and rolled him over on his face. In the back of the skull was a mark like a little mouth. Even as Corder watched this mark slowly smoothed out and grew fainter. Corder raised his gun and rolled the Out over. The clothing over the Out's chest had a neat round hole in it. There was no blood.

The Out's eyes slowly opened. They were peculiarly bright and keen eyes. Corder saw the Out's chest move to take in a deep breath. Corder brought the raised butt of his gun down hard. The bright eyes shut, then opened, and Corder knew he could never kill, never even harm, these beings who were of a superior race, far wiser, far stronger—

The Out's thin hand groped, and his eyes flickered for an instant. Corder brought the gun butt down hard, and rolled the Out over on his face. Corder looked up and saw a tense group of his men firing down into a patch of empty snow, while a spare fur-clad figure nearby slowly came to its knees, its brilliant eyes intent on the men. Corder brought his gun butt down again on the back of the head where the scar of the shot was almost gone.

Then he lay down by the Out, and taking the Out's gun, studied it a moment and rested it across the Out's back as he aimed. He squeezed the stud.

Whick! The gun jerked just a little in his hand.

He squeezed the stud again.

Whick! Whick!

The other Out fell over on his face, and Corder fired a dart from the weapon into the Out near him, who was starting again to move. After that, the Out lay still.

It took from the morning far into the afternoon before the Out position was completely under control. By then, Corder, the Colonel, and every man present in the whole expedition knew why the Outs had put this base temptingly far forward inside the human star system.

Before finally leaving Cryos, the Out position on Able Hill was thoroughly explored. There were dugouts in the snow that seemed to be barracks, headquarters dugouts, and dugouts that apparently served as recreation rooms. There were a large number of supply dugouts, and all of these had been burrowed into on a grand scale.

Corder, the Colonel, and a number of other officers and men, found themselves staring bemused at a huge pile of red-painted structural beams in the center of the Out camp. Each of these beams had holes about an inch across spaced along it at regular intervals. The beams were free of snow; several brooms were stuck in the snow at each end of the pile; and to one side was a stack of red hexagonal kegs, or drums, drifted over with snow.

"Granted," said the Colonel, "that they wanted to let us see plainly where they were, I can understand why they kept that pile of beams clear of snow. But I fail to see why they didn't make something useful out of it."

"Sir," said Corder, "we haven't found many tools here that they could have used. There are picks, shovels, and so on, but nothing in the way of mechanical tools."

A Major standing nearby spoke up. "Thank God. If they'd gotten their food supply up out of reach of the burrowers, we'd all be Out recruits by now."

The Colonel frowned at the stack of hexagonal kegs. "Sergeant, take a few men and break open one of those six-sided drums."

The Sergeant called to several men and waded through the snow toward the pile of kegs.

Corder shifted his grip on one of the Outs' long guns and looked around warily.

The Colonel smiled. "Uneasy, Captain?"

"Sir, I can't get rid of the feeling that there might be one we haven't caught."

The Major laughed boomingly. "God forbid."

The Colonel said in a quiet voice, "There is one we haven't caught."

Corder glanced sharply around. "Where?"

"In the Capitol."

"Sir?"

"When I was sent back to the Capitol," said the Colonel, still in his quiet voice, "I had the same sensation I had here when the Outs took us over. I'd forgotten it, but the memory came back when it happened a second time. The sensation when I was convinced of the 'dynamic counterdefensive' was exactly the same as the sensation here; but it was much stronger than what happened here."

"Good God," burst out the Major, "then they've got a spy through to the top. *That's* why our orders are all cockeyed!"

The Colonel didn't turn his head. Dryly, he said, "It seems to be a possibility."

"Then," said the Major after a pause, "we've lost the war."

Corder opened his mouth angrily, then clamped it shut.

The Colonel turned his head to look at the Major.

"We might just as well," the Major was saying heatedly, "throw in the—" His eyes strayed to meet the Colonel's gaze. The Major's voice cut off, and for an instant his lips moved with no sound coming out.

The Colonel, looking at the Major, spoke in a flat toneless voice. "You're a good man in combat, but you'd better learn to control what thoughts make use of your tongue."

"Sorry, sir."

The Colonel looked away, and said broodingly, "Things are so connected together that it's impossible to tell what leverage any single event will have. But if we do our best, at least we have nothing to reproach ourselves for afterward." He turned to the Major, and said in a voice edged with anger, "Always remember, our own wounds and troubles are painfully close to us. The agonies of the enemy are too far away to appreciate. Just do your job and don't complain except when it will do some good."

"No, sir," said the Major miserably.

The Sergeant let out a shout. Corder turned to see that the Sergeant was holding up in one hand a wrench, and in the other a bolt with washers and a nut threaded on it. Corder squinted at the bolt and washers, glanced at the holes in the red beams.

The Colonel said, "Captain, do you see what I seem to see? Come on."

They waded through the snow.

The men were breaking open more of the six-sided drums.

"Sir," said the Sergeant, "they all seem to be the same size."

Corder took one of the bolts, and passed it—washers, nut, and all—easily through the holes in the stacked beams. "Too small," he said. "But how did they ever make a mistake like that?"

"That wonderful convincing ability of theirs," said the Colonel. "If it's like any other ability, they have it in varying degrees. What happens, I wonder, if a lazy, highly-convincing Out competes for a position with a conscientious, skilled, but not-so-convincing Out? And if there's mismanagement, how does it get rooted out, when the bungler can convince everyone in his mind that he's right?"

They stared at the pile of beams, and the Major blurted, "Well, I'll be da—" then cut himself off and bit his lip.

The Colonel glanced at the Major and smiled faintly. "It would be a little premature to give up, wouldn't it?"

"Yes, sir."

"Why?"

"They have their troubles, sir."

The Colonel nodded, and the Major looked like a boy who has gotten off the cracking ice onto hard ground, and resolves to stay there.

Corder looked at the piles of beams and stacks of bolts and shook his head.

Late that afternoon they took their captive Outs and blasted off.

THE END

A BICYCLE BUILT FOR BREW

BY POUL ANDERSON

Illustrated by van Dongen

***Second of Two Parts.** In which it is shown that an old Danish rocket engineer really has a head for beer . . . and needs a beer with plenty of head to make headway.*

SYNOPSIS

The development of gyrogravitics had not only made interplanetary travel comparatively cheap and easy, but permitted extensive colonization. A generator of suitable size could give an artificial gravitational field, sharply limited in range but strong enough to retain an atmosphere; the atomic power plant furnishing the energy for this could also supply heat to compensate for the remoteness of the sun and electricity for everyday uses. There was a good deal of emigration from Earth, and small new nations sprang up throughout the Solar System.

A British party under a Stuart pretender colonized the Anglian Cluster, a group of asteroids circling a mutual center of gravity, and founded their own kingdom. An Irish settlement in a similar cluster became the Erse Republic. The two countries had little contact except at close approach, about once in forty years. During the previous conjunction, an asteroid called Laoighise by its Erse discoverer—who had never claimed it formally—and Lois by the Anglian prospectors who visited it later, drifted between the two nations and was found to possess valuable praseodymium beds. The Anglians promptly mounted a super-powerful "geegee" unit on it and changed its orbit to make it part of their own cluster. The Erse protested, were overruled by the World Court, and nursed their grudge for forty years. Nevertheless, as they again approached Anglia, their peaceful Gaelic Socialist government planned no action, and even the opposition party, the Shamrock League, did not openly advocate risking war. After all, the Anglian Navy was mounting heavy guard on Lois to forestall any attempt at seizure.

However, an extremist politician, SCOURGE - OF - THE - SASSENACH O'TOOLE, organized a secret filibustering expedition. With a space freighter and a large party of armed men—the Shamrock League Irredentist Expeditionary Force—he entered the Anglian Cluster: landing not on Laoighise but on undefended Grendel, a bucolic resort planetoid which offered no resistance. Seizing all communication equipment, the Erse prevented word of their arrival from getting out, even though the Anglian capital, New Winchester, was only ten thousand kilometers away. They set to work installing a new geegee, powerful enough to make Grendel mobile. Their plan was to move this worldlet against Laoighise, whose guardians would not fire on their own countrymen, and thus capture the disputed asteroid and bring it back to their own cluster—after which public sentiment would surely sweep their party into office, and it could make the enterprise retroactively official.

At this point the tramp spaceship Mercury Girl, *old and battered, barely paying her own way, landed on Grendel. The Erse seized her and used her Venusian ownership as an excuse for quarantining all Grendel for six weeks, on suspicion of plague.*

Now there was no danger of any Anglian authorities landing and discovering the true state of affairs, which would have been catastrophic for the ill-equipped Erse. But their action was a disaster for the Mercury Girl, *part of whose cargo was due elsewhere under a stiff penalty contract. If she suffered so heavy a loss, she would be scrapped and her crew out of work. CAPTAIN RADHAKRISHNAN protested violently to O'Toole.*

Meanwhile the Danish engineer, KNUD AXEL SYRUP, bicycled into Grendel Town to see if the consignee would at least pay for the cargo to be delivered locally: cases and outsize kegs of beer, pretzels and popcorn, all for the Alt Heidelberg Rathskeller. He found that the tavern had been acquired by a Martian, as avaricious and tentacled as all his race, who now called himself SARMISHKIDU VON HIMMELSCHMIDT and tried to speak with a German accent. Though the Erse were convivial and correctly behaved, business was now so bad, and the forthcoming vacation trade would be so thoroughly ruined, that he could not accept the cargo. He would probably go bankrupt as it was.

The vicar's charming daughter, EMILY CROFT, appeared, scantily clad in pseudo-Hellenic garb; she was Grendel's solitary Duncanite, a believer in natural foods and classical dance. Nevertheless, she had become friendly with Sarmishkidu, who shared her interest in the Attic drama as well as remaining a mathematician. She had tried unsuccessfully to raise Grendel against the invaders. Since then she had been seeing a good deal of MAJOR RORY MC CONNELL, a large cheerful young Erseman who was much taken with her and for whom she admitted feeling an attraction. McConnell himself followed her into the tavern, but she repulsed him; somewhat conscience-stricken at the distress his expedition here was causing, he soon left again. After numerous beers, Herr Syrup bicycled back to his ship. Her captain and crew had gone raging off to wreck the Erse geegee being installed; but they succeeded only in getting themselves arrested. Herr Syrup was left alone on the ship with his pet, the talking crow CLAUS.

The ship's internal-field compensator, which furnished a steady one gravity under free fall or acceleration, had been giving some trouble. Conceiving a plan, Herr Syrup sabotaged the unit in a most un-obvious way, went to O'Toole, and demanded his legal right to make repairs—which would necessitate putting the Mercury Girl *into orbit about Grendel. O'Toole naturally feared an attempt would be made to contact* New *Winchester; he had already sequestrated all the ship's radio and radar. Herr Syrup suggested a guard be put aboard with him. His plan was to construct a powerful spark-gap oscillator out of the ship's spare electrical parts and call the Anglian capital in Morse code. He could do this under the nose of a guard ignorant of technology. O'Toole, suspecting a plot,* *employed a legal technicality himself: the ship could not lift without a crew of at least three, and all the other spacemen were in jail.*

Herr Syrup got around this by signing on Emily and Sarmishkidu. But then Rory McConnell appointed himself the guard. Being a trained spaceman, the major was quite able to help work on the compensator. Furthermore, aware that a dot-dash radio could be made, McConnell locked all the electrical parts into a cabinet in the engine room, kept its key and announced he would sleep beside it.

The Mercury Girl *assumed her orbit. An artificial gravity field was supplied by reversing engine polarity, though this immobilized the ship. Herr Syrup asked Emily to keep McConnell on the bridge a few hours, while he picked the cabinet lock and smuggled out the parts he needed. Emily, with no vamping experience, bungled the job rather badly. First she asked McConnell outright to help overthrow the Erse force. He admitted he did not personally care who owned Laoighise and had joined merely for a lark; but now his oath was given and he would stand by his comrades. Then Emily tried to distract him, modeling her behavior on that of lady spies in books. Thus overdone, her actions so infuriated him that he stormed off the bridge.*

Sincerity and honesty have long been considered virtues, but sometimes they are definite detriments; with both Love and War involved, they were positive catastrophes.

PART 2

KNUD AXEL SYRUP paused a moment in the after tranverse corridor. The bulkhead which faced him bore a stenciled KEEP OUT and three doors: the middle one directly to the engine room, the right-hand one to the machine shop and the left to his small private cabin. These two side chambers also had doors opening directly on the engine room. It made for a lack of privacy distressing in the present cloak-and-dagger situation.

However, the wild Erseman would no doubt be up on the bridge for hours. Herr Syrup sighed, a little enviously, and went through the central door.

"Awwrk," said Claus, flapping in from the cabin. *"Nom d'un nom d'une vache! Schweinhund!"*

"Exactly," said Herr Syrup. He entered the little bathroom behind the main energy converter and extracted a bottle of beer from a cooler which he had installed himself. Claus paced impatiently along a rheostat. Herr Syrup crumbled a pretzel for him and poured a little beer into a saucer. The crow jabbed his beak into the liquid, tilted back his black head, shook out his feathers, and croaked: *"Gaudeamus igitur!"*

"You're velcome," said Herr Syrup. He inspected the locked electrical cabinet. Duplicating a Yale key would call for delicate instruments and skilled labor. After latching all doors to the outside, he went into the machine shop, selected various items, and returned. First, perhaps, a wire into the slot . . .

The main door shivered under a mule kick. Faintly through its insulated metal thickness came a harsh roar: "Open up, ye auld scut, or Oi-ll crack the outer hatches an' let ye choke!"

"Yumping Yupiter," said Herr Syrup.

He pattered across the room and admitted Rory McConnell, who glared down upon him and snarled: "So 'tis up to your sneakin' thricks ye are again, eh? Throw a pretty face an' long legs at me an'—Aaargh! Be off wi' yez!"

"But," bleated Herr Syrup. "But vas you not talkin' vit' Miss Croft?"

"Oi was," said McConnell. " 'Tis not a mistake Oi'll make ag'in. Go tell her to save her charms for bigger fools than me. Oi'm goin' to slape now." He tore off his various weapons, laid them beside his pack, and sat down on the floor. "Git out!" he rapped, fumbling at a boot zipper. His face was like fire. "Tomorry perhaps Oi can look at ye wi'out bokin'!"

"Oh, dear," said Herr Syrup.

"Oh, shucks," said Claus, though not in just those words.

Herr Syrup picked up his miscellaneous tools and stole back into the workshop. A moment afterward he remembered his bottle of beer and stuck his head back through the communicating door. McConnell threw a boot at him. Herr Syrup closed the door and toddled out to make another requisition on the cargo.

Having done so, he stopped by the saloon. Emily was there, her face in her arms, her body slumped over the table and shuddering with sobs. At the far end sat Sarmishkidu, puffing his Tyrolean pipe and making calculations.

"Oh, dear," said Herr Syrup again, helplessly.

"Can you not console her?" asked Sarmishkidu, rolling an eye in his direction. "I have endeavored to do so, and am sorry to report absolute failure."

Herr Syrup took a strengthening pull from his bottle.

"You see," explained the Martian, "her noise distracts me."

He fumed smoke for a dour moment. "I should at least think," he whined, "that having dragged me here, away from my livelihood and all the small comforts which mean so much to a poor lonely exile among aliens like myself—sustaining, heartening consolations which already I find myself in sore need of—namely a table of elliptic integrals—having so ruthlessly forced me into the trackless depths of outer space, and apparently not even to any good purpose, she would have the consideration not to sit there and weep at me."

"Dere, dere," said Herr Syrup, patting the girl's shoulder.

"Uhhhhh," said Emily.

"Dere, dere, dere," continued Herr Syrup.

The girl raised streaming eyes and

sobbed pathetically: "Oh, go to hell."

"Vat happened vit' you and de mayor?"

A bit startled, Emily sniffed out: "Why, nothing, unless you mean that time last year when he asked me to preside at the Ladies' Potato Race, during the harvest festi— Oh! The major!" She returned her face to her arms. "Uhhhh-hoo-hoo-hoo!"

"I gather she tried to seduce him and failed," said Sarmishkidu. "Naturally, her professional pride is injured."

Emily leaped to her feet. "What do you mean, professional?" she screeched.

"Vy, vy, nottings," stammered Sarmishkidu, retreating into a different character. "I chust meant your female prides. All vimmen iss females by profession, *nicht war?* Dot iss ein choke. Ha, ha," he added, to make certain he would be understood.

"And I *didn't* try to. . . to . . . Oh!" Emily stormed out of the saloon. A string of firecracker Greek trailed after her.

"Vat is she saying?" gaped Herr Syrup.

Herr von Himmelschmidt turned pale. "Please don't to ask," he said. "I did not know she vas familiar mit dot edition of Aristophanes."

"Helledusse!" said the engineer moodily. "Ve ban hashed now."

"Hm-m-m," muttered Sarmishkidu. "It is correct that the enemy is armed and we are not. Nevertheless, it is an observational datum that there are three of us and only one of him, and so if we could separate him from his weapons, even briefly, and—"

"And?"

"Oh. Well, nothing, I suppose." Sarmishkidu brooded. "True," he said at last, "one of him would still be equivalent to four or five of us." He pounded the table with an indignant hand. Since the hand, being boneless, merely flopped when it struck, this was not very dramatic. "It is most unfair of him," he squeaked. "Ganging up on us like that."

Herr Syrup stiffened with thought.

"Unlautere Wettbewerb," amplified the Martian.

"Do you know—" whispered the Dane.

"What?"

"I hate to do dis. It does not seem right. I know it is not right. But by Yoe, maybe he ban asleep now!"

The idea dawned on Sarmishkidu. "Well, I'll be an unelegantly proven lemma," he breathed. "So he doubtless is."

"And for veapons, in de machine shop is all de tools. Like wrenches, hammers, vire cable—"

"Blowtorches," added Sarmishkidu eagerly. "Hacksaws, sulfuric acid—"

"No, hey, vait dere! Yust a minute! I don't vant to hurt him. Yust a little bonk on de head to make him sleep sounder, vile ve tie him up, dat's all." Herr Syrup leaped erect. "Let's go!"

"Good luck," said Sarmishkidu, returning to his calculations.

"Vat? But hey! Is you leaving me to do dis all alone?"

Sarmishkidu looked up. "Go!" he

said in a ringing croak. "Remember the Vikings! Remember Gustavus Adolphus! Remember King Christian standing by the high mast in smoke and steam! The blood of heroes is in your veins—go, go to glory!"

Fired, Herr Syrup started for the door. He stopped there and asked wistfully, "Don't you vant a little glory, too?"

Sarmishkidu blew a smoke ring and scribbled an equation. "I am more the intellectual type," he said.

"Oh." Herr Syrup sighed and went down the corridors. His resolution endured till he actually stood in the workshop, by the glow of a dim night light, hefting a pipe wrench. Then he wavered.

The sound of deep, regular breathing assured him that Major McConnell slept in the adjoining chamber. But—"I don't vant to hurt him," repeated Herr Syrup. "I could so easy clop him too hard." He shuddered. "Or not hard enough. I better make another reqvisition on de cargo first—No. Here ve go." Puffing out his mustache and mopping the sweat off his pate, the descendant of Vikings tiptoed into the engine room.

Rory McConnell would scarcely have been visible at all, had his taste in pajamas not run to iridescent synthesilc embroidered with tiny shamrocks. As it was, his body, sprawled on a military bedroll, seemed in the murk to stretch on and on, interminably, besides having more breadth and thickness than was fair in anything but a gorilla. Herr Syrup hunkered shakily down by the massive redhead, squinted till he had a spot just behind one ear identified, and raised his weapon.

There was a snick of metal. The wan light glimmered along a pistol barrel. It prodded Herr Syrup's nose. He let out a yelp and broke all Olympic records for the squatting high jump.

Rory McConnell chuckled. "Oi'm a sound slaper whin no wan else comes snaykin' close to me," he said, "but Oi've hunted in too many forests not to awaken thin. Good night, Misther Syrup."

"Good night," said Knud Axel Syrup in a low voice.

Blushing, he went back to the machine room. He waited there a moment, ashamed to return to his cabin past McConnell and yet angry that he must detour. Oh, the devil with it! He heard the slow breath of slumber resume. Viciously, he slammed his tool back into the rack loudly enough to wake an estivating Venusian. The sleeper did not even stir. And that was the most unkindest cut of all.

Stamping his feet, slamming doors, and kicking panels as he went by—all without so much as breaking the calm rhythm of Rory McConnell's lungs—Herr Syrup took the roundabout way to his cabin. He switched on the light and pointed a finger at Claus. The crow hopped off the Selected Works of Oehlenschläger and perched on the finger.

"Claus," said Herr Syrup, not quite bellowing, "repeat after me: McConnell is a louse. McConnell is no good. McConnell eats vorms. On Friday. McConnell—"

—slept on.

Herr Syrup decided at last to retire himself. With a final sentence for Claus to memorize, an opinion in crude language of Major McConnell's pajamas, he took off his own clothes and slipped a candy-striped nightshirt over his head. Stretched out in his bunk, he counted herrings for a full half hour before realizing that he was more awake than ever.

"Satans ogsaa," he mumbled, and switched on the light and reached at random for a book. It turned out to be a poetry anthology. He opened it and read:

". . . *The secret working of the yeast of life."*

"Yudas," he groaned. "Yeast."

For a moment Herr Syrup, though ordinarily the gentlest of men, entertained bloodshot fantasies of turning the ship's atomic-hydrogen torch into a sort of science-fiction blaster and burning Major McConnell down. Then he decided that it was impractical and that all he could do was requisition a case of lager and thus get to sleep. Or at least pass the night watch more agreeably.

He decorated his feet with outsize slippers and padded into the corridor.

Emily Croft jumped. "Oh!" she squeaked, whipping her robe about her. The engineer brightened a little, having glimpsed that her own taste in sleeping apparel ran merely to what nature had provided.

"Vich is sure better dan little green clovers," he muttered.

"Oh . . . you startled me." The girl blinked. "What did you say?"

"Dat crock in dere." Herr Syrup jerked a splay thumb at the engine room door. "He goes to bed in shiny payamas vit' shamrocks measled all over."

"Oh, dear," said Emily. "I hope his wife can teach him—" She skidded to a halt and blushed. "I mean, if any woman would be so foolish as to have such a big oaf."

"I doubt it," snarled the Dane. "I bet he snores."

"He does not!" Emily stamped her foot.

"Oh-ho," said Herr Syrup. "You ban listening?"

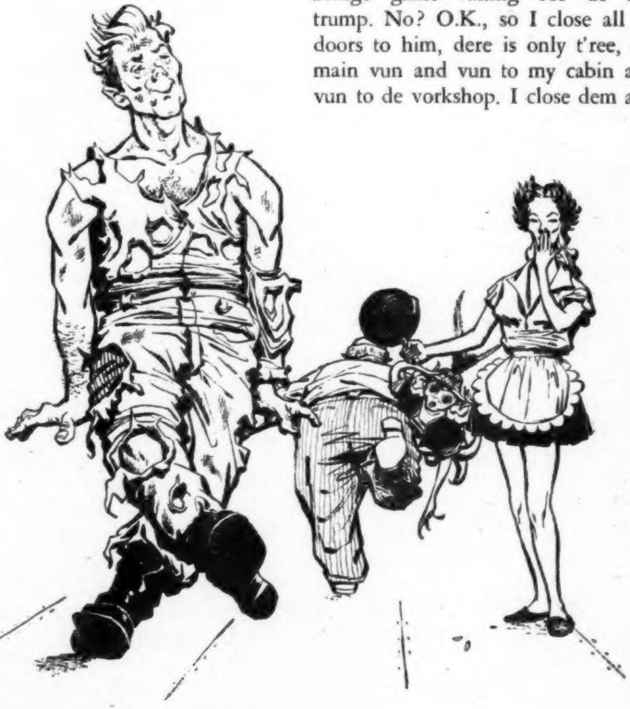
"I was only out for a constitutional in the hope of overcoming an unfortunate insomnia," said Miss Croft primly. "It was sheer chance which took me past here. I mean, anybody who can lie there like a pig and, and, and sleep when—" She clouded up for a rainstorm. "I mean, how *could* he?"

"Vell, but you don't care about him anyvay, do you?"

"Of course not! I hope he rots, I mean decays. No, I don't actually mean that, you know, because even if he is an awful lout he is still a human being and, well, I would just like to teach him a lesson. I mean, teach him to have more consideration for others and not go right to sleep as if nothing at all had happened, because I could see that he was hurt and if he had only given me a chance to explain, I — Oh, never mind!" Emily clenched her fists and stamped her foot again. "I'd just like to lock him up in there, since he's sleeping so soundly. That would teach him that other people have feelings even if he doesn't!"

Herr Syrup's jaw dropped with an audible clank.

Emily's eyes widened. One small hand stole to her mouth. "Oh," she said, "is anything wrong?"



"By yiminy," whispered Herr Syrup. "By yumping yiminy."

"Oh, really now, it isn't that bad. I mean, I know we're in an awful pickle and all that sort of thing, but really—"

"No. I got it figured. I got a vay to get de Erser off of our necks!"

"What?"

"*Ja, ja, ja,* it is so simple I could beat my old knucklebone brains dat I don't t'ink of it right avay. Look, so long as ve stay out of de enshine room he sleeps just like de dummy in a bridge game vaiting for de last trump. No? O.K., so I close all de doors to him, dere is only t'ree, dis main vun and vun to my cabin and vun to de vorkshop. I close dem and veld dem shut and dere he is!"

Emily gasped.

She leaped forward and kissed him.

"Yudas priest," murmured Herr Syrup faintly. His revolving eyeballs slowed and he licked his lips. "T'ank you very kind," he said.

"You're wonderful!" glowed Emily, brushing mustache hairs off her nose.

And then, suddenly: "No. No, we can't. I mean, he'll be right in there with the machinery and if he turns it off—'

"Dat's O.K. All de g'enerators and t'ings is locked in deir shieldings, and dose keys I have got." Herr Syrup stumped quickly down the hall and into the machine shop. "His guns does him no good behind velded alloy plating." He selected a torch, plugged it in, and checked the current. "So. Please to hand me dat helmet and apron and dose gloves. Don't look bare-eyed at de flame."

Gently, he closed the side door. Momentarily he was terrified that McConnell would awaken: not that the Erseman would do him any harm, but the scoundrel was so unfairly large. However, even the reek of burning paint, which sent Emily gagging back into the corridor, failed to stir him.

Herr Syrup plugged his torch to a drum of extension cord and trailed after her. "Tum-te-tum-te-tum," he warbled, attacking the main door. "How does dat old American vork song go? Yohn Henry said to de captain, vell, a man ain't not'ing but a man, but before I ompty-tumty-somet'ing-somet'ing, I'll die vit' a somet'ing-umpty-tum, Lord, Lord, I'll die vit' a tiddly-tiddly-pom!" He finished the job. "And now to my cabin, and ve is t'rough."

Emily's mouth quivered. "I do hate to do this," she said. "I mean, he is such a darling . . . no, of course he isn't, I mean he's an oaf, but . . . not really an oaf either, he just has never had a chance to— Oh, you know what I mean! And now he'll be shut away in there, all alone, for days and days and days."

Herr syrup paused. "You can talk to him on de intercom," he suggested.

"What?" She elevated her nose. "That big lout? *Let* him sit all alone! Maybe then he can see there are other people in the universe besides himself!"

Herr Syrup entered his cabin and began to close the inner door.

"McConnell is a four-lettering love child!" screamed Claus.

"He is not either!" yelled Emily, turning red.

There was a stir in the engine-room darkness. "Fwhat's all that racket out there?" complained a lilting basso. "Is it not enough to bhreak me heart, ye must kape me from the slipe which is me wan remainin' comfort?"

"Sorry," said Herr Syrup, and closed the door.

"Hey, there!" bawled McConnell. He bounced off his bedroll. The vibration of it shivered in the metal. "Fwhat's goin' on?"

"Yust lie down," babbled Herr Syrup. "Go back to sleep." His cracked baritone soared as he switched on the torch. Sparks showered about him. *"Lullaby-y-y and good night, dy-y-y mo-o-o-der's delight—"*

"Ah, ha!" McConnell thundered toward the door. "So 'tis cannin' me ye are, ye treacherous Black-an'-Tanners! We'll see about that!"

"Look out!" screamed Emily. "Look out, Rory! It's hot!"

A torrent of Gaelic oaths, which made Claus gape in awe, informed her that McConnell had discovered this for himself. Herr Syrup played the flame up and down and crossways. A tommy gun rattled on the other side, but the *Girl,* though old, was of good solid construction, and nothing happened but a nasty spang of ricochet.

"Don't!" pleaded Emily. "Don't, Rory! You'll kill yourself! Oh, Rory, be careful!"

Herr Syrup cut off his torch, slapped back his helmet, and looked with enormous self-congratulation at the slowly cooling seams. "Dere, now," he said. "Dat's dat!"

Claus squawked. The engineer turned around just in time to see his bunk blankets spring up in flame.

Emily leaned against the wall and cried through smoke and fire extinguisher fumes: "Rory, Rory! Are you all right, Rory?"

"Oh, yiss, Oi'm aloive," growled the voice behind the panels. "It playses ye better to let me thirst an' starve to death in here than kill me honestly, eh?"

"Ou ma dia!" gasped the girl. "I didn't think of that!"

"Yiss, yiss. Tell it to the King's marines."

"Just a minute!" she begged, frantic. "Just a minute and I'll get you out! Rory, I swear I never— Look out, I'll have to cut the door open—"

Herr Syrup dropped the plastifoam extinguisher and clapped a hand on her wrist as she picked up the torch. "Vat you ban doing?" he yelped.

"I've got to release him!" cried Emily. "We've got to! He hasn't anything in there to keep him alive!"

Herr Syrup gave her a long stare. "So you t'ink his life is vort' more dan all de folk vat maybe get killed if dere is a var, huh?" he asked slowly.

"Yes . . . no . . . oh, I don't know!" sobbed the girl, struggling in his grasp and kicking at his ankles. "We've got to let him out, that's all!"

"Now vait, vait yust a minute. I t'ought of dis problem right avay. It is not so hard. Dere is ventilar shafts running all t'rough de ship, maybe ten centimeters diameter. Ve just unscrew a fan in vun and drop down cans of space rations to him. And a can opener, natural. It vill not hurt him to eat cold beans and drink beer for a vile. He has also got a bat'room in dere, and I t'ink a pack of cards. He vill be O.K."

"Oh, thank God!" whispered Emily.

She put her lips close to the door and called: "Did you hear that, Rory? We'll send you food through the ventilator. And don't worry about it being just cold beans. I mean, I'll make you nice hot lunches and wrap them well so you can get them intact. I'm not a bad cook, Rory, honestly, I'll prove it to you. Oh, and do you have a razor? Otherwise I'll find one for you. I mean, you don't want to come out all bristly . . . I mean—Oh, never mind!"

"So," rumbled the prisoner. "Yiss, Oi heard." Suddenly he shouted with laughter. "Ah, 'tis swate iv yez, darlin', but it won't be naydful. Ye'll be relaysin' me in a day or two at the most."

Herr Syrup started and glared at the door. "Vat's dat?" he snapped.

"Why, 'tis simple 'tis. For the loifeboats are down on Grendel, an' ayven the propulsive units iv ivry spacesuit aboard, not to spake iv the radjo an' radar, an' the spare electhrical parts is all in here with me. An' so, for the matter iv it, is the injins. Ye can't git the King's help, ye can't ayven git back to ground, without a by-your-layve from me. So Oi'll expect ye to open the door in as few hours as it takes for that fact to sink home into the square head iv yez. Haw, haw, haw!"

"Det var som fanden," said the engineer.

"Fwhat?"

"De hell you say. I got to look into dis." Herr Syrup scurried from the cabin, his nightgown flapping about his hairy shanks and the forgotten fire extinguisher still jetting plastifoam on the floor behind him.

"Oh, dear." Emily wrung her hands. "We just don't have any luck."

McConnell's voice came back: "Nivver ye mind, macushla, for Oi heard how ye feared for me loife, an' that at a moment whin ye thought ye'd the upper hand. So 'tis humbly Oi ask your pardon for all I said earlier this night. 'Twas a good thrick ye've played on me now, even if it did not work, an' minny a long winther evenin' we'll whoile away in afther years a-laughin' at it."

"Oh, Rory!" breathed Emily, leaning against the door.

"Oh, Emily!" breathed McConnell on his side.

"Rory!" whispered the girl, closing her eyes.

The unnoticed plastifoam crept up toward her ears.

Sarmishkidu slithered into the Number Three hold and found Herr Syrup huddled gloomily beneath one of the enormous beer casks. He had a mug in one hand and the tap of the keg in the other. Claus perched on a rack muttering: "Damn Rory McConnell. Damn anybody who von't damn Rory McConnell. Damn anybody who von't sit up all night damning Rory McConnell."

"Oh, there you are," said the Martian. "Your breakfast has gotten cold."

"I don't vant no breakfast," said Herr Syrup. He tossed off his mug and tapped it full again.

"Not even after your triumph last watch?"

"Vat good is a triumph ven I ain't

triumphant? I have sealed him into de enshine room, *ja,* vich is to say ve can't move de ship from dis orbit. You see, de polarity reverser vich I installed on de geegee lines, to give us veight, is in dere vit' him, and ve can't travel till it has been taken out again. So ve can't go direct to New Vinshester ourselves. And he has also de electrical parts locked up vit' him."

"I have never sullied my mathematics with any attempt at a merely practical application," said Sarmishkidu piously, "but I have studied electromagnetic theory and it would appear upon integration of the Maxwell equations that you could rip out wires here and there, machine the bar and plate metal stored for repair work in the shop, and thus improvise an oscillator."

"Sure," said Herr Syrup. "Dat is easy. But remember, New Vinshester is about ten t'ousand kilometers avay. Any little laboratory model powered just off a 220-volt line to some cabin, is not going to carry a broadcast dat far. At least, not vun vich has a reasonable shance of being noticed dere in all de cosmic noise. I do have access to some powerful batteries.

"By dissharshing dem very qvick, ve can send a strong signal; but short-lived, so it is not likely in so little a time dat anyvun on de capital asteroid is listening in on dat particular wavelengt'. For you see, vit'out de calibrated standards and meters vich McConnell has, I cannot control de frequency. Mush most likely it vould happen ve broadcast on a freqvency vich no vun of New Vinshester's small population uses or is tuned in on."

He sighed. "No, I have spent de night trying to figure out somet'ing, and all I get is de answer I had before. To make an SOS dat vill have any measurable shance of being heard, ve shall have to have good cable, good impedances, meters and so on—vich McConnell is now sitting on.

"Or else ve shall have to run for a long time t'rough many unknown freqvencies, to be sure of getting at least vun vich vill be heard; and for dat ve shall have to use de enshine room g'enerator, vich McConnell is also sitting on."

"He is?" Sarmishkidu brightened. "But it puts out a good many thousands of volts, doesn't it?"

"I vas speaking figurative, damn de luck." Herr Syrup put the beer mug to his lip, lifted his mustache out of the way with a practiced forefinger, and bobbed his Adam's apple for a while.

Sarmishkidu folded his walking tentacles and let down his bulbous body. He waggled his ears, rolled his eyeballs, and protested: "But ve can't giff up yets! Ve chust can't! Here iss all dis beautiful beer vot I could sell at fifty percents profit, even if I haff der pretzels und popcorn free. Und vot goot iss it doing? None!"

"Oh, I vouldn't say dat," answered Herr Syrup, a trifle blearily, and drew another mugful.

"Dis lot has too much carbonation

for my taste," he complained. "You t'ink I ban an American? It makes too mush head."

"Dot iss on special order from me," confided the Martian. "In der head iss der profit, if vun iss not too chenerous in scraping it off."

"You is got too many arms and not enough soul," said Herr Syrup. "I t'ink for dat I let you clean out my cabin. It is got full vit' congealed plastifoam. And to make a new fire extingvisher for it, vy, I take a bottle of your too carbonated beer and if dere is a fire I shake it and take my t'umb off de mout' and— Of course," mused Herr Syrup, "could be you got so much CO_2 coming out, I get t'rown backvards."

"If you don't like my beer," said Sarmishkidu, half closing his eyes, "you can chust let me haff der stein you got."

"Action and reaction," said Herr Syrup.

"Hm-m-m?"

"Newton's t'ird law."

"Yes, yes, yes, but what relevance does that have to—"

"Beer. I shoot beer out de front end of de bottle, I get tossed on my can."

"But you said it was a bottle."

"—a, ja, ja, ja—"

"Weiss' nicht wie gut ich dir bin?" sang the Martian.

"I mean," said Herr Syrup, wagging a solemn finger, "de bottle is a kind of rocket. Vy, it could even . . . it could even—"

His voice ground to a halt. The mug dropped from his hand and the beer splashed on the floor.

"Beerslayer!" screamed Claus.

"But darlin'," said Rory McConnell into the intercom, "Oi don't loike dried apricots."

"Oh, hush," said Emily Croft from the galley. "You've never been healthier in your life."

"Oi feels loike Oi'm rottin' away. Not through the monotony so much, me swate, whilst Oi can be hearin' the soft voice iv yez, but the only ixercoise Oi can get is calisthinics, which has always bored me grievous."

"True," said Emily, "all those fuel pipes and things don't leave much room for classical dancing, do they? Poor dear!"

"Oi'd thrade me mither's brown pig for a walk in the rain wi' yez, macushla."

"Well, if you'd only give us your parole not to make trouble, dear, we could let you out this minute."

"No, ye well know the Force has me prior oath an' the Force Oi'll foight for till 'tis disbanded either through victhory or defayt. An' how long will it take the auld omadhaun Syrup to realaze 'tis him has been defayted? Oi've lain in here almost a wayk be the clock. Oi hear noises day an' noight from the machine room, an' divvil a word Oi can git iv fwhat's goin' on. Let me out, swateheart! Oi bear no ill will. Oi'll kiss the pretty lips iv ye an' we'll all go down to Grendel an' say nothin' about fwhat's happened. Save iv course that Oi've won the loveliest girl in the galaxy for me own."

"I wish I could," sighed Emily. "How I wish it! *'O'Dion who sent my heart mad with love!'* "

"Who's this Dion?" bristled Major McConnell.

"Nobody you need worry about, dear. It's only a quotation. Translated, naturally. But what I mean to say is, Mr. Syrup and Mr. Sarmishkidu have so much to take care of and it won't be long now, I swear it won't, just another day or two, they say, and then their project will be over and they can—Oh! I promised not to tell! But what I mean, dear, is that I'll stay behind and I'm not supposed to let you out immediately, maybe not for still another day, but I'll look after you and make you nice lunches and— Yes," said Emily with a slight shudder, "there won't even be any more dried fruit in your meals, because I've run out of what there was; in fact, for days now I've been giving it all to you and eating corned beef and drinking beer myself, and I must admit it tastes better than I remembered, so if you insist on calcifying your liver after we're married, why, I suppose I'll have to also, and actually, darling, I don't know anyone who I'd rather calcify my liver with. Really."

"Fwhat is all this?" Rory McConnell stepped back, his big frame tensing. "Ye mane they've not jist been puttherin' about, but have some plan?"

"I mustn't tell! Please, beloved, honestly, I've been sworn to absolute secrecy, and now I must go. They need me to help, too. I have been installing pipe lines and things and actually, dear, it's very exciting. I mean, when I use a welding torch I have to wear a helmet very much like a classical dramatic mask, so I stand there reciting from the *Agamemnon* as if I were on a real Athenian stage, and do you know, I think when this is all over and we're married and have our own Greek theater in the garden I'll organize a presentation of the whole *Orestes* trilogy — in the original, of course—with welding outfits. 'Bye now!" Emily blew a kiss down the intercom and pattered off.

Rory McConnell sat down on a generator shield and began most furiously to think.

The first beer-powered spaceship in history rested beneath a derrick by the main cargo hatch.

It was not as impressive as Herr Syrup could have wished. Using a small traveling lift for the heavy work, he had joined four ten-ton casks of Nashornbräu end to end with a light framework. The taps had been removed from the kegs and their bungholes plugged, simple electrically-controlled Venturi valves in the plumb center being substituted. Jutting an orthogonal axes from each barrel there were also L-shaped exhaust pipes, by which it was hoped to control rotation and sideways motion. Various wires and shafts, their points of entry sealed with gunk, plunged into the barrels, ending in electric beaters. A set of relays was intended to release each container as it was exhausted. The power for all this—

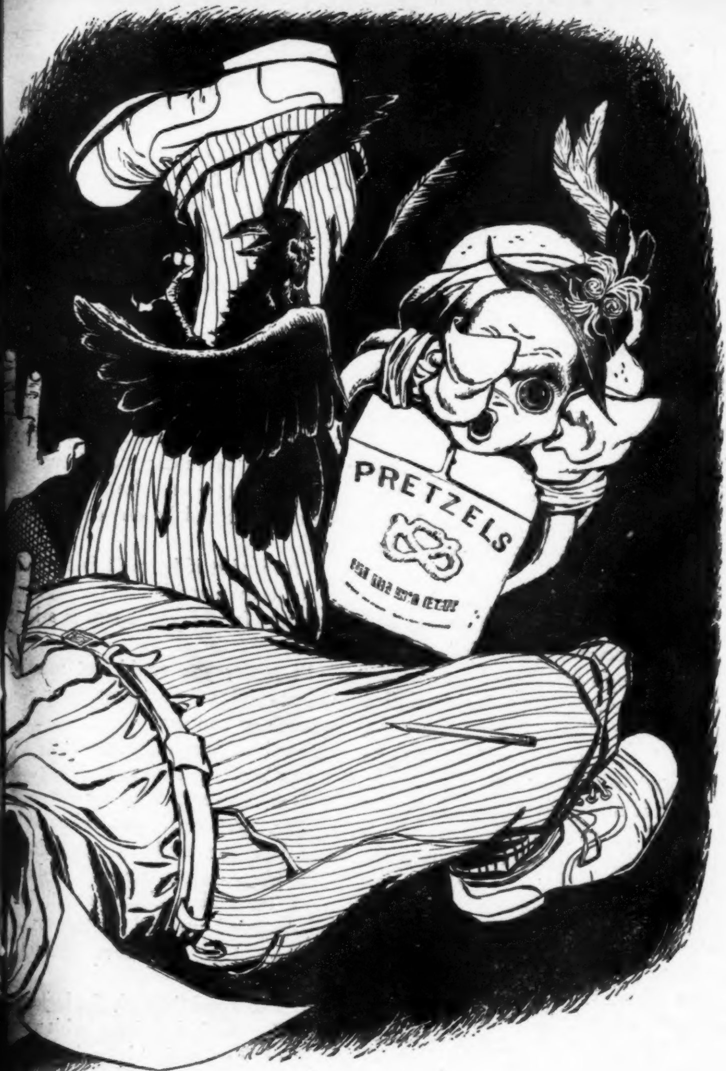
it did not amount to much—came from a system of heavy-duty EXW batteries at the front end.

Ahead of those batteries was fastened a box, some two meters square and three meters long. Sheets of plastic were set in its black-painted sides by way of windows. The torso and helmet of a spacesuit jutted from the roof, removably fastened in a screw-threaded hatch cover which could be turned around. Beside it was a small stovepipe valve holding two self-closing elastic diaphragms through which tools could be pushed without undue air loss. The box had been put together out of cardboard beer cases, bolted to a light metal frame and carefully sized and gunked.

"You see," Herr Syrup had explained grandly, "in dis situation, vat do ve need to go to New Vinshester? Not an atomic motor, for sure, because dere is almost neglishible gravity to overcome. Not a nice streamlined shape, because ve have no air hereabouts. Not great structural strengt', for dere is no strain odder dan a very easy acceleration; so beer cardboard is strong enough for two, t'ree men to sit on a box of it under Eart' gravity. Not a fancy t'ermostatic system for so short a hop, for de sun is far avay, our own bodies make heat and losing dat heat by radiation is a slow process. If it does get too hot inside, ve can let a little vater evaporate into space t'rough de stovepipe valve to cool us; if ve get shilly, ve can tap a little heat t'rough a coil off de batteries.

"All ve need is air. Not even mush air, since I is sitting most of de time and you ban a Martian. A pair of oxygen cylinders should make more dan enough; *ja,* and ve vill need a chemical carbon-dioxide absorbe and some desiccating stuffs so you d not get a vater vapor drunk. For co fort ve vill take along a few bottl beer and some pretzels to nibble o

"As for de minimal boat itself,


PRETZELS

have tested de exhaust velocity of hot, agitated beer against vacuum, and it is enough to accelerate us to a few hundred kilometers per hour, maybe t'ree hundred, if ve use a high enough mass ratio. And ve vill need a few simple navigating instruments, an ephemeris, slide rule, and so on. As a precaution, I install my bicycle in de cabin, hooked to a simple homemade g'enerator, yust a little electric motor yuggled around to be run in reverse, vit' a rectifier. Dat vay, if de batteries get too veak ve can resharshe dem. And also a small, primitive oscillator ve can make, short range, *ja,* but able to run a gamut of freqvencies vit'out exhausting de batteries, so ve can send an SOS ven ve ban qvite close to New Vinshester. Dey hear it and send a spaceship out to pick us up, and dat is dat."

The execution of this theory had been somewhat more difficult, but Herr Syrup's ears aboard the *Mercury Girl* had made him a highly skilled improviser and jackleg inventor. Now, tired, greasy, and content, he smoked a well-earned pipe as he stood admiring his creation. Partly, he waited for the electric coils which surrounded the boat and tapped the ship's power lines, to heat the beer sufficiently; but that was very nearly complete, to the point of unsafeness. And partly he waited for the ship to reach that orbital point which would give his boat full tangential velocity toward the goal; that would be in a couple of hours.

"Er . . . are you sure we had better not test it first?" asked Sarmishkidu uneasily.

"No, I t'ink not," said Herr Syrup. "First, it vould take too long to fix up an extra barrel. Ve been up here a veek or more vit'out a vord to Grendel. If O'Toole gets suspicious and looks t'rough a telescope and sees us scooting around, right avay he sends up a lifeboat full of soldiers; vich is a second reason for not making a test flight."

"But, well, that is, suppose something goes wrong?"

"Den de spacesuit keeps me alive for several hours and you can stand vacuum about de same lengt' of time. Emily vill be vatching us t'rough de ship's telescope, so she can let McConnell out and he can come rescue us."

"And what if he can't find us? Or if we have an accident out of telescopic range from here? Space is a large volume."

"I prefer you vould not mention dat possibility," said Herr Syrup with a touch of hauteur.

Sarmishkidu shuddered. "Der t'ings vot an honest pizznizzman hass got to —*Donnerwetter! Was ist das?"*

The sharp crack was followed by an earthquake tremble through girders and plates. Herr Syrup sat down, hard. The deck twitched beneath him. He bounced up and pelted toward the exit. "Dat vas from de stern!" he shouted.

He whipped through the bulkhead door, Sarmishkidu toiling in his wake, and up an interhold ladder to the axial passageway. Emily Croft had just emerged from the galley, a frying pan in one hand and an apron tied around her classic peplum. "Oh, dear," she cried, "I'm sure Rory's cake has fallen. What was that noise?"

"Yust vat I vould like to know." The engineer flung himself down the corridor. As he neared the stern, a faint acrid whiff touched his nose. "In de enshine room, I am afraid," he panted.

"The engine—*Rory!*" shrieked the girl.

"Comin', macushla," said a cheerful voice, and the gigantic red-thatched shape swung itself up from the after companionway.

Rory McConnell hooked thumbs in his belt, planted his booted feet wide, and grinned all over his smoke-blackened snub face. Herr Syrup crashed to a halt and stared frog-eyed. The Erseman's green tunic hung in rags and blood trickled from his nose. But the soot only made his teeth the more wolfishly white and his eyes the more high-voltage blue, while his bare torso turned out to carry even thicker muscles than expected.

"Well, well, well," he beamed. "An' so here we all are ag'in. Emily, me love, Oi ask your humble pardon for inny damage, but Oi couldn't wait longer for the soight iv yez."

"Vat have you done?" wailed Herr Syrup.

"Oh, well, sor, 'twas nothin. Oi had me carthridges, an' a can opener an' me teeth an' ither such tools. So Oi exthracted the powder, tamped it in an auld beer bottle, lay a fuse, fired me last shot to loight same, an' blew out wan iv thim doors. An' now, sor, let's have a look at fwhat ye been doin' this past wayk, an' thin Oi think it best we return to the cool green hills iv Grendel."

"Ooooh," said Herr Syrup.

McConnell laughed so that the hall rang with his joy, looked into the stricken wide gaze of his beloved and opened his arms. "Not so much as a kiss to seal the bethrothal?" he said.

"Oh . . . yes . . . I'm sorry, darling." Emily ran toward him.

"I *am* sorry," she choked, burst into tears, and clanged the frying pan down on his head.

McConnell staggered, tripped on his boots, recovered, and waltzed in a circle. "Get away!" screamed Emily. "Get away!"

Herr Syrup paused for one frozen instant. Then he flung out a curse, whirled, and pounded back along the corridor. At the interhold ladderhead he found Sarmishkidu, puffing along at the slow pace of a Martian under Terrestrial gee. "What has transpired?" asked Sarmishkidu.

Herr Syrup scooped him up under one arm and bounded down the ladder. "Hey!" squealed the Martian. "Let me go! *Bist du ganz geistegestört?* What do you mean, sir? ***Urush nergatar shalmu ishkadan!*** This instant! *Versteh'st du?"*

Rory McConnell staggered to the nearest wall and leaned on it for a few seconds. His eyes cleared. With a hoarse growl, he sprang after the engineer. Emily stuck a shapely leg in his path. Down he went.

"Please!" she wept. "Please, darling, don't make me do this!"

"They're gettin' away!" bawled McConnell. He got to his feet. Emily hit him with the frying pan. He sagged back to hands and knees. She stooped over him, frantically, and kissed the battered side of his head. He lurched erect. Emily slugged him again.

"You're being cruel!" she sobbed.

The bulkhead door closed behind Herr Syrup. He set the unloading controls. "Ve ban getting out of here," he panted. "Before de Erser gets to de master svitch and stops everyt'ing cold."

"What Erser?" sputtered Sarmishkidu indignantly.

"Ours." Herr Syrup trotted toward the beer boat.

"Oh, that one!" Sarmishkidu hurried after him.

Herr Syrup climbed to the top of his boat's hull and lifted the space armor torso. Sarmishkidu swarmed after him like a herpetarium gone mad. The Dane dropped the Martian inside, took a final checkaround, and lowered himself. He screwed the spacesuit into place and hunched, breathing heavily. His bicycle headlamp was the only illumination in the box. It showed him the bicycle itself, braced upright with the little generator hitched to its rear wheel; the pants of his space armor, seated on a case of beer; a bundle of navigation instruments, tables, pencils, slide rule, and note pad; a tool box; two oxygen cylinders and a CO_2-H_2O absorber unit with an electric blower, which would also circulate the air as needed during free fall; the haywired control levers which were supposed to steer the boat; Sarmishkidu, draped on a box of pretzels; and Claus, disdainfully stealing from a box of popcorn which Herr Syrup suddenly realized he had no way of popping. And then, of course, himself.

It was rather cramped quarters.

The air pump roared, evacuating the chamber. Herr Syrup saw darkness thicken outside the boat windows, as the fluoro light ceased to be diffused. And then the great hatch swung ponderously open, and steel framed a blinding circle of stars.

"Hang on!" he yelled. "Here ve go!"

The derrick scanned the little boat with beady photoelectric eyes, seized it in four claws, lifted it, and pitched it delicately through the hatch, which thereupon closed with an air of good riddance to bad rubbish. Since there was no machine outside to receive the boat, it turned end for end, spun a few meters from the *Mercury Girl*, and drifted along in much the same orbit, still trying to rotate on three simultaneous axes.

Herr Syrup gulped. The transition to weightlessness was an outrage, and the stars ramping around his field of view didn't help matters. His stomach lurched. Sarmishkidu groaned, hung onto the pretzel box with all six tentacles, and covered his eyes with his ears. Claus screamed, turning end for end in midair, and tried without success to fly. Herr Syrup reached for a control lever but didn't quite make it. Sarmishkidu uncovered one sick eye long enough to mumble: "Bloody blank blasted Coriolis force." Herr Syrup clenched his teeth, caught a mouthful of mustache, grimaced, spat it out, and tried again. This time he laid hands on the switch and pulled.

A cloud of beer gushed frostily from one of the transverse pipes. After several rather unfortunate attempts, Herr Syrup managed to stop the boat's rotation. He looked around him. He hung in darkness, among blazing stars. Grendel was a huge gibbous green moon to starboard. The *Mercury Girl* was a long rusty spindle to port. The asteroid sun, small and weak but perceived by the adaptable human eye as quite bright enough, poured in through the spacesuit helmet in the roof and bounced dazzlingly off his bare scalp.

He swallowed sternly, to remind his stomach who was boss, and began taking navigational sights. Sarmishkidu rolled a red look "upward" at Claus, who clung miserably to the Martian's head with eyes tightly shut.

Herr Syrup completed his figuring. It would have been best to wait a while yet, to get the maximum benefit of orbital velocity toward New Winchester; but McConnell was not going to wait. Anyhow, this was such a slow orbit that it didn't make much difference. Most likely the factor would be quite lost among the fantastically uncertain quantities of the boat itself. One would have to take what the good Lord sent. He gripped the control levers.

A low murmur filled the cabin as the rearmost beer barrel snorted its vapors into space. There was a faint backward tug of acceleration pressure, which mounted very gradually as mass decreased. The thrust was not centered with absolute precision, and, of course, the distribution of mass throughout the whole structure was hit-or-miss, so the boat began to pick up a spin again. Steering by the seat of his pants and a few primitive meters, Herr Syrup corrected that tendency with side jets.

Blowing white beer fumes in all directions, the messenger boat moved slowly along a wobbling spiral toward New Winchester.

"Oh, darling, dearest, beloved," wept Emily, dabbing at Rory McConnell's head, "forgive me!"

"Oi love yez, said the Erseman, sitting up, "but unliss ye'll stop poundin' in me skull Oi'll have to lock yez up for the duration."

"I promise . . . I promise . . . oh, I couldn't bear it! Sweetheart" —Emily clutched his arm as he rose—"can't you let them go now? I mean, they've gotten clean away, you've lost, so why don't we wait here and, well, I mean to say, really."

"Fwhat do ye mane to say?"

Emily blushed and lowered her eyes. "If you don't know," she said in a prime voice, "I shall certainly not tell you."

McConnell blushed, too.

Then, resolutely, he started toward the bridge. The girl hurried after him. He flung back: "Tell me fwhat it is they're escapin' in, an' maybe Oi'll be riddy to concede hon'rable defayt." But having been informed, he only barked a laugh and said, "Well, an' 'tis a gallant try, 'tis, but me with riggular spaceship at me beck can't admit the end iv the game. In fact, me dear, Oi'm sorry to say they haven't a Plutonian's chance in hell."

By that time he was in the turret, sweeping the skies with its telescope. It took him a while to find the boat, already it was a mere speck in the gleaming dark. He scowled, chewed his lip, and muttered half to himself:

" 'Twill take toime to exthract the polarity reversor, an' me not a thrained injineer. By thin the craft will be indayd hard to locate. If Oi wint on down to Grendel to git help, 'twould take hours to raych the ear iv himself an' assimble a crew, if Oi know me Erse lads. An' hours is too long. So . . . Oi'll have go afther our friends there alone. Acushla, Oi don't think ye'll betray their cause if ye fix me a sandwich or six an' open me a botthle iv beer whilst Oi work."

McConnell did, in fact, require almost an hour to get the geegee repulsors to repulsing again. With the compensator still on the fritz, that put the ship's interior back in free fall state. He floated, dashing the sweat from his brow, and smiled at Emily. "Go sthrap yourself in, me rose iv Grendel, for Oi may well have to make some sharp maneuvers an' Oi wouldn't be bruisin' iv that fair skin—Damn! Git away!" That was addressed to the sweat he had just dashed from his brow. Swatting blindly at the fog of tiny globules, he pushed one leg against a wall and arrowed out the door.

Up in the turret again, harnessed in his seat before the pilot console, he tickled its controls and heard the engines purr. "Are ye ready, darlin'?" he called into the intercom.

"Not yet, sweetheart," Emily's voice floated back. "One moment, please."

"A momint only," warned McConnell, squinting into the telescope. He could not have found the fleeing boat at all were it not for the temporary condensation of beer vapor into a cloud as expansion chilled it. And all he saw was a tiny, ghostly nebula on the very edge of vision. To be sure, knowing approximately what path the fugitives must follow gave him a track; he could doubtless always come within a hundred kilometers of them that way; but—

"Are ye riddy, me sugar?"

"Not yet, love. I'll be with you in a jiffy."

McConnell drummed impatient fingers on the console. The *Mercury Girl* swung gently around Grendel. His head still throbbed.

"Da-a-a-arlin'! Toime's a-wastin'! We'll be late!"

"Oh, give me just a sec. Really, dearest, you might remember when we're married and have to go out some place a girl wants to look her best, and that takes time, I mean dresses and cosmetics and so on aren't classical, but I guess if I can give up my principles for you so you can be proud of me and if I can eat the things you like even if they aren't natural, well, then you can wait a little while for me to make myself presentable and—"

"A man has two choices in this universe," said McConnell grimly to himself, "he can remain celibate or he can resign himself to spendin' ten percint iv his life waitin' for women."

He glared at the chronometer. "We're late alriddy!" he snapped. "Oi'll have to run off a diff'rint approach curve to our orbit an'—"

"Well, you can be doing it, can't you? I mean, instead of just sitting there grumbling at me, why don't you do something constructive like punching that old computer or whatever it is?"

McConnell stiffened. "Emily," he said through thinned lips, "are ye by inny chance stallin' me?"

"Why, Rory, how could you? Merely because a girl has to—"

He calculated the required locus and said, "ye've got jist sixty seconds to prepare for acceleration."

"But Rory!"

"Fifty seconds."

"But I mean to say, actually—"

"Forty seconds."

"Oh, right-o, then. And I'm not angry with you, love, really I'm not. I mean, I want you to know a girl admires a man like you who actually is a man. Why, what would I do with one of those awful 'Yes, dear' types, they're positively Roman! Imperial Roman, I mean. The Republican Romans were at least virile, though of course they were barbarians and rather hairy. But what I meant to say, Rory, is that one reason I love you so much—"

After about five minutes of this, Major McConnell realized what was going on. With an inarticulate snarl he stabbed the computer, corrected his curve for time lost, punched it into the autopilot, and slapped down the main drive switch.

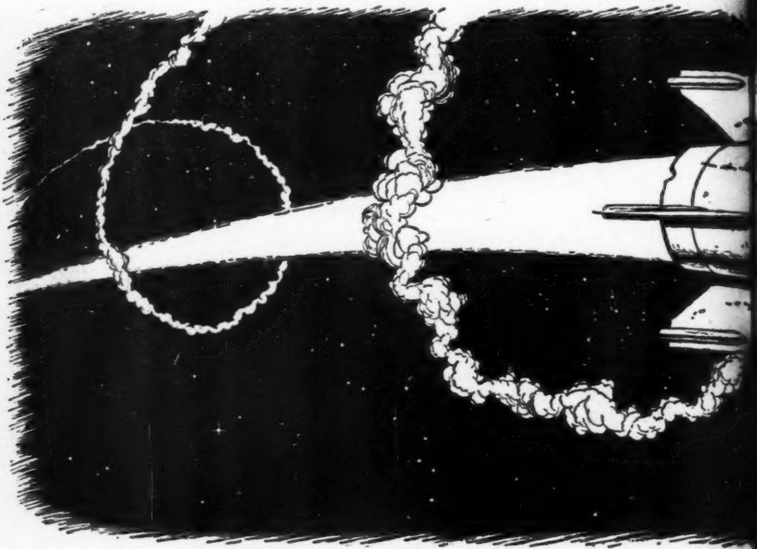
First the ship turned, seeking her direction, and then a Terrestrial gravity of acceleration pushed him back into the chair. No reason to apply more: he felt sure that leprechaun job he was chasing could scarcely pick up one meter per second squared, and matching velocities would be a tricky enough business for one man alone. He saw Grendel swing past the starboad viewport and drop behind. He applied a repulsor field forward to kill some of his present speed, simultaneously giving the ship an impulse toward ten-thirty o'clock, twenty-three degrees "high." In a smooth arc, the *Mercury Girl* picked up the trail of Herr Syrup and began to close the gap.

"Ah, now we'll end this tale," murmured Rory McConnell, "an' faith, ye've been a worthy foeman an 'tis not Oi that will stint ye whin we mate ag'in in some friendly pub afther the glorious ridimption iv Gaelic La—Oops!"

For a horrible moment, he thought that some practical joker had pulled the seat out from under him. He fell toward the floor, tensing his muscles for the crash . . . and fell, and fell, and after a few seconds realized he was in free fall.

"Fwhat the jumpin' blue hell?" he roared and glared at the control board meters, just as the lights went out.

A thousand stars leered through the viewport. McConnell clawed blindly at his harness. He heard the ventilator fans sigh to a halt. The stillness became frightful. "Emily!" he shouted, "Emily, where are ye?" There was no reply. Somehow he found the intercom switch and jiggled it. Only a mechanical clicking answered; that circuit was also dead.



Groping and flailing his way aft, he needed black minutes to reach the engine room. It was like a cave. He entered, blind, drifting free, fanning the air with one invisible hand to keep from smothering in his own unventilated exhalations, his heartbeat thick and horrible in his ears. There should be a flashlight clipped somewhere near the door . . . but where . . . He groaned: "Are we fallen into the divvil's fingers?"

A small sound came from somewhere in the gloom. "Fwhat's that?" he bawled. "Who's there? Where are ye? Speak up before"—and he went on with a richness of description to be expected when Gaelic blood has had a checkered career.

"Rory!" said an offended feminine voice out of the abyss. "If you are going to use that kind of language before me, you can just wipe your mouth out and not come until you are prepared to say it in Greek like a gentleman! I mean, really!"

"Are ye here? Darlin', are ye here? Oi thought—"

"Well," said the girl, "I know I promised not to hit you any more, and I wouldn't, not for all the world, but I still have to do what I can, don't I, dear? I mean, if I gave up you'd just despise me. It wouldn't be British."

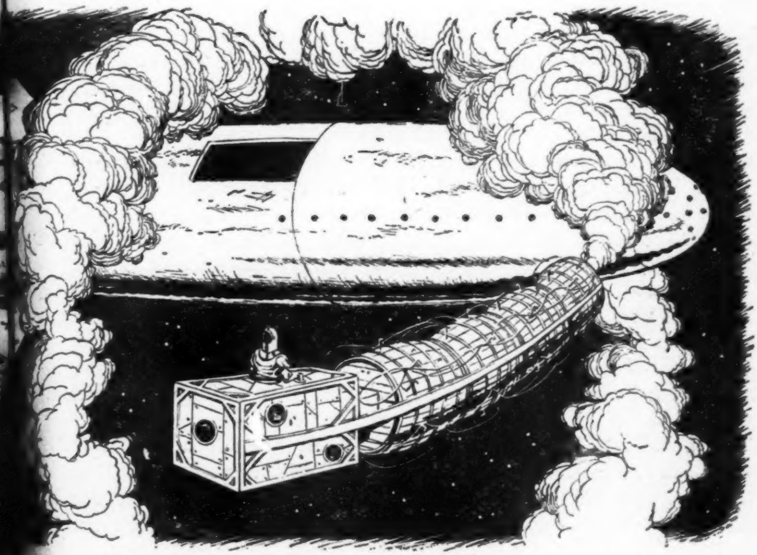
"Fwhat have ye done?"

After a long pause, Emily said in a small voice: "I don't know."

"How's that?" snapped McConnell.

"I just went over to that control panel or whatever it is and started pulling switches. I mean to say, you don't expect me to know what all those things are for, do you? Because I don't. However," said Emily brightly, "I can parse Greek verbs."

"Oh . . . no!" groaned McConnell. He began fumbling his way toward the invisible board. Where was it, anyhow—?



"I can cook, too," said Emily. "And sew. And I'm awfully fond of children."

Herr Syrup noted on his crude meters that the first-stage beer barrel was now exhausted. He pulled the switch that dropped it and pushed himself up into the spacesuit to make sure that that had actually been done. Peering through the helmet globe, he saw that one relay had stuck and the keg still clung. He popped back inside and told Sarmishkidu to hand him some sections of iron pipe through the stovepipe valve; this emergency was not unanticipated. Clumsy in gauntlets, his fingers screwed the pieces together to make a prod which could reach far aft and crack the empty cask loose.

It occurred to him how much simpler it would have been to keep his tools in a box fastened to the outer hull. But of course such things only come to mind when a model is being tested.

He stared aft. The *Mercury Girl* was visible to the unaided eye, though dwindling perceptibly. She still floated inert, but he could not expect that condition to prevail for long. Well, a man can but try. Herr Syrup wriggled out of the armor torso and back into the cabin. Claus was practising free-fall flight technique and nipping stray droplets of beer out of the air; sometimes he collided with a drifting empty bottle, but he seemed to enjoy himself.

"Resuming acceleration," said Herr Syrup. "Give me a pretzel."

Suds gushed from the second barrel. The boat wobbled crazily. Of course the loss of the first one had changed its spin characteristics. Herr Syrup compensated and plowed doggedly on. The second cask emptied and was discharged without trouble. He cut in the third one.

Presently Sarmishkidu crawled "up" into the spacesuit. A whistle escaped him.

"Vat?" asked Herr Syrup.

"Dere . . . behind us . . . your spaceship—und it iss coming verdammten fast!"

Having strapped his fiancée carefully into the acceleration chair beside his own, Rory McConnell resumed pursuit. He had lost a couple of hours by now, between one thing and another. And while she drifted free, the *Girl* had, of course, orbited well off the correct track. He had to get back on it and than start casting about. For a half hour of strained silence, he maneuvered.

"There!" he said at last.

"Where?" asked Emily.

"In the 'scope," said McConnell. His ill-humor let up and he squeezed her hand. "Hang on, here we go. Oi-ll have thim back aboard in ten minutes."

The hazy cloud waxed so fast that he revised his estimate upward. He had too much velocity; it would be necessary to overshoot, brake, and come back—

The *crash! clang-ng-ng!* jarred his teeth together. For a moment, his heart paused and he knew naked fear.

"What was that?" asked Emily.

He hated to frighten her, but he forced out of suddenly stiff and sandy lips: "A meteor, Oi'm sure. An' judgin' from the sound iv it, 'twas big an' fast enough to stave in a whole compartmint." You could not exactly roll your eyes heavenward in free space, but he tried manfully. "Holy St. Patrick, is this inny way to treat your loyal son?"

He shot past the wallowing beer boat at kilometers per second, falling free while he ripped off his harness. "The instruments aren't showin' damage, but beloike the crucial wan is been knocked out," he muttered. "An' us with no injin crew an' no deckhands. Oi'll have to go out there meself to check. At least this section is unharmed." He nodded at the handkerchief he had thrown into the air; when the ventilators were briefly turned off, it simply hung, borne on no current of leakage. "If we begin to lose air elsewhere, swateheart, there'll be automatic ports to seal yez off, so ye're all roight for the next few hours."

"But what about you?" she cried, white-faced now that she understood. "What about you?"

"Oi'll be in a spacesuit." He leaned over and kissed her. " 'Tis not the danger that's so great as the delay. For somethin' Oi'll have to do, jist so acceleration strain don't pull the damaged hull apart. Oi'll be back whin Oi can, darlin'."

And yet, as he went aft, there was no sealing bulwark in his way, nowhere a wind whistling toward the dread emptiness outside. Puzzled and more than a little daunted, Rory McConnell completed his interior inspection in the engine room, broke out his own outsize space armor from his pack, and donned it: a slow, awkward task for one man alone. He floated to the nearest air lock and let himself out.

It was eerie on the hull, where only his clinging bootsoles held him fast among streaming cold constellations. The harshness of undiffused sunlight and the absolute blackness of shadow made it hard to recognize anything for what it was. He saw a goblin and crossed himself violently before realizing it was only a lifeboat tank; and he was an experienced spaceman.

An hour's search revealed no leak. There was a dent in the bow which might or might not be freshly made, nothing else. And yet that meteor had struck with such a doomsday clang that he had thought the hull might be torn in two . . . Well, evidently St. Patrick had been on the job. McConnell returned inside, disencumbered himself, went forward, reassured Emily, and began to kill his unwanted velocity.

Almost two hours had passed before he was back in the vicinity of the accident, and then he could not locate the fugitive boat. By now it would have ceased blasting; darkly painted, it would be close to invisible in this black sky. He would have to set up a search pattern and— He groaned.

Something drifted across his telescopic field of view. What the deuce? He nudged the spaceship closer, and gasped.

"Son of a—" Hastily, he switched to Gaelic.

"What is it, light of both my eyes?" asked Emily.

McConnell beat his head against the console. "A couple iv hoops an' some bhroken staves," he whimpered. "Oh, no, no, no!"

"But what of it? I mean, after all, when you consider how Mr. Syrup put that boat together, well, actually."

"That's jist it!" howled McConnell. "That's what's cost me near heart failure, plus two priceless hours or more an'—That was our meteor! An impty beer barrel! Oh, the ignominy iv it!"

Herr Syrup stopped the exhaust of his fourth-stage keg and leaned back into weightlessness with a sigh. "Ve better not accelerate any more," he said. "Not yust now. Ve vill need a little reserve to maneuver later on."

"Vot later on?" asked Herr von Himmelschmidt sourly. "I don't know vy der ship shot on past us, but soon it comes back und den ve iss maneuvered into chail."

"Vell, meanvhile shall ve pass de time?" Herr Syrup took a greasy pack of cards from his jacket and riffled them suggestively.

"Stop riffling them suggestively!" squealed Sarmishkidu. "This is no time for idle amusements."

"Vat else is it a time for?"

"Well . . . hm-m-m . . . no, not that— Perhaps . . . no—Shilling ante?"

At the end of some four hours, when he was ahead by several pounds sterling in I.O.U.'s and Sarmishkidu was whistling like an indignant bagpipe, Herr Syrup noticed how dim the light was getting. The gauge showed him that the outside batteries were rather run down also. Everything would have to be charged up again. He explained the situation. "Do you vant first turn on de bicycle or shall I?" he asked.

"Who, me?" Sarmishkidu wagged a languid ear. "Whatever gave you the idea that evolution has prepared my race for bicycle riding?"

"Vell . . . I mean . . . dat is—"

"You are letting your Danishness run away with you."

"Satan i helvede!" muttered Herr Syrup. He floated himself into the saddle, put feet to pedals, and began working.

"And de vorst of it is," he grumbled, "who is ever going to believe I crossed from Grendel to New Vinshester on a bicycle?"

Slowly, majestically, and off-center, the boat picked up an opposite rotation.

"There they be!" cried Rory McConnell.

"Oh, dear," said Emily Croft.

The beer boat swelled rapidly in the forward viewport. The weariness of hour upon hour, searching, dropped from the Erseman. "Here we go!" he cried exultantly. "Tantivy, tantivy, tantivy!"

Then, lacking radar, he found that the human eye is a poor judge of free-space relationships. He buckled down to the awkward task of matching speeds.

"Whoops!" he said. "Overshot!" Ten kilometers beyond, he came to a relative halt, twisted the cumbersome mass of the ship around, and approached slowly. He saw a head pop up into the spacesuit helmet, glare at him, and pop back again. Foam spouted; the boat slipped out of his view.

McConnell readjusted and came alongside, so that he looked directly from the turret at his prey. "He hasn't the acceleration to iscape us," he gloated. "Oi'll folly each twist an' turn he cares to make, from now intil—" He stopped.

"Until we get to New Winchester?" asked Emily in a demure tone.

"But . . . Oi mane to say . . . but!" Major McConnell bugged tired eyes at the keg-and-box bobbing across the stars.

"But Oi've overhauled thim!" he shouted, pounding the console. "Oi've a riggular ship with hundreds iv toimes their mass an' . . . an' . . . they've got to come aboard! It isn't fair!"

"Since we have no wireless, how can you inform them of that?" purred the girl. She leaned over close and patted his cheek. Her gaze softened. "There, there. I'm sorry. I do love you, and I don't wan't to tease you or anything, but honestly, don't you think you're becoming a bit of a bore on this subject? I mean, enough's enough, don't you know."

"Not if ye're iv Erse blood, it isn't." McConnell set his jaw till it ached. "Oi'll scoop 'em up, that's fwhat Oi will!"

There was a master control for the cargo machinery in the engine room, but none on the bridge. McConnell unstrapped himself, shoved grimly "down" to the hold section, pumped out the main hatch chamber and opened the lock. Now he had it gaping wide enough to swallow the boat whole, and—

Weight came back. He crashed into the deck. "Emily!" he bellowed, picking himself up with a bloody nose. "Emily, git away from them conthrols!"

Three Terrestrial gravities of acceleration were a monstrous load on any man. He took minutes to regain the bridge, drag himself to the main console, and slap down the main drive switch. Meanwhile Emily, sagging in her chair and gasping for breath, managed a tolerant smile.

When they again floated free, McConnell bawled at her: "Oi love yez more than Oi do me own soul, an' ye're the most beautiful craythur the cosmos will ivver see, an Oi've half a moind to turn yez over me knee an' paddle ye raw!"

"Watch your language, Rory," the vicar's daughter reproved. "Paddle me black and blue, *if* you please. I mean, I don't like double entendres."

"Ah, be still, ye blitherin' angel," he snarled. He swept the sky with a bloodshot telescope. The boat was out of sight again. Of course.

It took him half an hour to relocate it, still orbiting stubbornly on toward New Winchester. And New Winchester had grown noticeably brighter.

"Now we'll see fwhat we'll see," grated Major McConnell.

He accelerated till he was dead ahead of the boat, matched speeds and spun broadside to. As nearly as he could gauge it, the boat was aimed directly into his open cargo hatch.

Herr Syrup applied a quick side jet, slipped "beneath" the larger hull, and continued on his way.

"Aaaargh!" Tiny flecks of foam touched McConnell's lips. He tried again.

And again.

And again.

"It's no use," he choked at last. "He can sloide past me too aisy. The wan thing Oi could do would be to ram him an' be done—Arragh, hell have him, he knows Oi'm not a murdherer."

"Really, dear," said Emily, "it would all be so simple if you would just give up and admit he's won."

"Small chance iv that!" McConnell brooded for long minutes. And slowly a luster returned to his eyes. "Yiss. Oi have it. The loadin' crane. Oi'll have to jury-rig a conthrol to the bridge, as well as a visio screen so Oi can see fwhat Oi'm doin'. But havin' given meself that much, why, Oi'll approach ag'in with the crane grapple projectin' from the hatch, raych out, an' grab hold!"

"Rory," said Emily, "you're being tiresome."

"Oi'm bein' Erse, by all the saints!" McConnell rubbed a bristly red jaw. "'Tis hours 'twill take me, an' him fleein' the whoile. Could ye hold us alongside, me only wan?"

"Me?" The girl opened wide blue eyes and protested innocently: "But darling, you told me after that last time to leave the controls alone, and I admit I don't know a thing about it. I mean, it would be unlawful for me to try piloting, wouldn't it, and positively dangerous. I mean to say, *medeu pratto.*"

"Ah, well, Oi moight have known how the good loyal heart iv yez would make ye a bloody nuisance. But either give me your word iv honor not to touch the pilot board ag'in, or Oi must break me own heart by tyin' yez into that chair."

"Oh, I promise, dear. I'll promise you anything within reason."

"An' fwhatsoivver ye don't happen to want is unreasonable. Yiss." Rory McConnell sighed, kissed his lady love, and went off to work. The escape boat blasted feebly but steadily into a new orbit—not very different, but time and the pull of the remote sun on an inert ship would show their work later on.

General Scourge - of - the - Sassenach O'Toole lifted a gaunt face and glared somberly at the young guardsman who had finally won through to his office. "Well?" he clipped.

"Beggin' your pardon, sor, but—"

"Salute me, ye good-for-nothin' scut!" growled O'Toole. "Fwhat kind iv an army is it we've got here, where a proivate soldier passin' the captain in the sthreet slaps his back an' says, 'Paddy, ye auld pig, the top iv the mornin' to yez an' if ye've a momint to spare, why, 'tis proud Oi'll be to stand yez a mug of dark in yon tavern'—eh?'"

"Well, sor," said the guardsman, his Celtic love of disputation coming to the fore, "Oi'd say 'twas a foine well-run army iv outsthandingly hoigh morale. Though truth to spake, the captain Oi've been saddled with is a pickle-faced son iv a landlord who would not lift his hat to St. Bridget herself, did the dear holy colleen come walkin' in his door."

"Morale, ye say?" shouted O'Toole, springing from his chair. "Morale cuts both ways, ye idjit! How much morale de ye think the officer's corps has got, or Oi meself, whin me own men name me Auld S.O.T.S. to me face, not ayven botherin' to sound the initials sep'rit, an' me havin' not touched a drop in all me loife? Oi'll have some respect hereabouts, begorra, or know the rayson why!"

"If ye want to know the rayson, Oi can give it to ye, Jiniral, sor, ye auld maid in britches!" cried the guardsman. His fist smote the desk. "'Tis jist the sour face iv yez, that's the rayson, an' if ye drink no drop 'tis because wan look at yez would curdle the potheen in the jug! Now if ye want some consthructive suggistions for improvin' the managemint iv this army—"

They passed an enjoyable half hour. At last, having grown hoarse, the guardsman bade the general a friendly good day and departed.

Five minutes later there was a scuffle in the anteroom. A sentry's voice yelped, "Ye can't go in there to himself without an appointmint!" and the guardsman answered, "An appointmint Oi've had, since the hour before dawn whin Oi first came an' thried to get by the bureaucratic lot iv yez!" and the scuffle got noisier and at last the office door went off its hinges as the guardsman tossed the sentry through it.

"Beggin' your pardon, sor," he panted, dabbing at a bruised cheek and judiciously holding the sentry down with one booted foot, "but Oi jist remembered why Oi had to see yez."

"Ye'll go to the bhrig for this, ye riotous scum!" roared O'Toole. "Corp-ril iv the guard! Arrest this man!"

"That attitude is precisely fwhat Oi was criticoizin' earlier," pointed out the soldier. "'Tis officers loike yez fwhat takes all the fun out iv war. Why, ye wall-eyed auld Fomorian, if ye'd been in charge iv the Cattle Raid iv Cooley, the Brown Bull would still be chewin' cud in his meaddy! Now ye listen to me—"

As four freshly arrived sentries dragged him off, he shouted back: "All roight, thin! If ye're goin' to be that way about it, all roight an' be damned to yez! Oi won't tell ye my news! Oi won't spake a word if fwhat Oi saw through the tellyscope jist before sunrise—or failed to see—ye can sit there in bloithe ignorance iv the Venusian ship havin' vanished from her orbit, till she calls down the Anglian Navy upon yez! See if Oi care!"

For a long, long moment, General Scourge - of - the - Sassenach O'Toole gaped out at Grendel's blue sky.

Spent, shaking with lack of sleep and sheer muscular weariness, Rory McConnell weaved through free fall toward the bridge. As he passed the galley, Emily stopped him. Having had a night watch of rest, she looked almost irritatingly calm and beautiful. "There, there, love," she said. "Is it all over with? Come, I've fixed a nice cup of tea."

"Don't want inny tea," he growled.

"Oh, but darling, you must! Why, you'll waste away. I swear you're already just skin and bones . . . oh, and your poor dear hands, the knuckles are all rubbed raw—Come on, there's a sweetheart, sit down and have a cup of tea. I mean, actually you'll have to float, and drink it out of one of those silly suction bottles, but the principle is the same. That old boat will keep."

"Not much longer," said McConnell. "By now, she's far closer to the king than she is to Grendel."

"But you can wait ten minutes, can't you?" Emily pouted. "You're not only neglecting your health, but me. You've hardly remembered I exist. All those hours, the only thing I heard on the intercom was swearing. I mean, I imagine from the tone it was swearing, though of course I don't speak Gaelic. You will have to teach me after we're married. And I'll teach you Greek. I understand there is a certain affinity between the languages." She rubbed her cheek against his bare chest. "Just as there is between you and me— Oh, dear!" She retired to try getting some of the engine grease off her face.

In the end, Rory McConnell did allow himself to be prevailed upon. For ten minutes only— Half an hour later, much refreshed, he mounted to the bridge and resumed acceleration.

Grendel was little more than a tarnished farthing among the stars. New Winchester had swelled until it was a great green and gold moon. There would be warships in orbit around it, patrolling— McConnell dismissed the thought and gave himself to his search.

After all this time, it was not easy. Space is big and even the largest beer keg is comparatively small. Since Herr Syrup had shifted the plane of his boat's orbit by a trifle—an hour's questing confirmed that this must be the case—the volume in which he might be was fantastically huge. Furthermore, drifting free, his vessel painted black, he would be hard to spot, even when you were almost on top of him.

Another hour passed.

"Poor darling," said Emily, reaching from her chair to rumple the major's red locks. "You've tried so hard."

New Winchester continued to grow. Its towns were visible now, as blurred specks on a subtle tapestry of wood and field and ripening grain;

the Royal Highroad was a thin streak across a cloud-softened dayface.

"He'll have to reveal himself soon," muttered McConnell from his telescope. "That beer blast is so weak—"

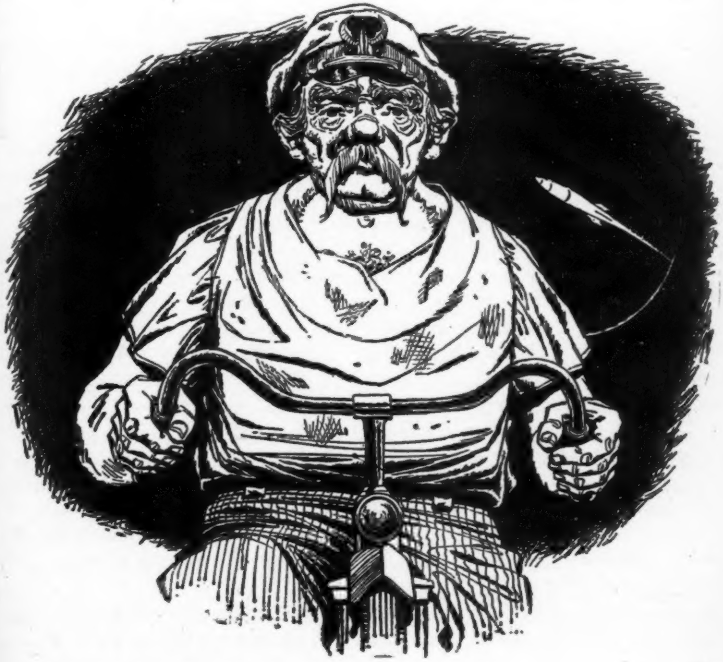
"Dear me, I understood Mr. Sarmishkidu's beer was rather strong," said Emily.

McConnell chuckled. "Ah, they should have used Irish whisky in their jet. But what Oi mint, me beloved, was that in so cranky a boat, they could not hope to hit their target on the nose, so they must make course corrections as they approach it. And with so low an exhaust velocity, they'll need a long time iv blasthin' to— *Hoy! Oi've got him!*"

The misty trail expanded in the viewfield, far and far away. McConnell's hands danced on the control board. The spaceship turned about and leaped ahead. The crane, projecting out of the cargo hatch, flexed its talons hungrily.

Fire burst!

After a time of strangling on his own breath, McConnell saw the brightness break into rags before his



dazzled eyes. He stared into night and constellations. "Fwhat the divvil?" he gasped. "Is there a Sassenach ship nearby? Has the auld squarehead a gun? That was a shot across our bows!"

He zipped past the boat at a few kilometers' distance while frantically scouring the sky. A massive shape crossed his telescopic field. It grew before his eyes as he stared—it couldn't be. "Our own ship!" choked McConnell. "Our own Erse ship."

The converted freighter did not shoot again, for fear of attracting Anglian attention. It edged nearer, awkwardly seeking to match velocities and close in on the *Mercury Girl*. "Git away!" shouted McConnell. "Git out iv the way, ye idjits! 'Tis not meself ye want, 'tis auld Syrup . . . over there— Git out iv me way!" He avoided imminent collision by a wild backward spurt.

The realization broke on him. "But how do they know 'tis me on board here?" he asked aloud.

"Telepathy?" suggested the girl, fluttering her lashes at him.

"They don't know. They can't even have noticed the keg boat, Oi'll swear. So 'tis us they wish to board an'— Git out iv the way!"

The Erse ship rushed in, sharklike. Again McConnell had to accelerate backward to avoid being stove. New Winchester dwindled in his viewports.

He slapped the console with a furious hand. "An' me lackin' a radjo to tell 'em the truth," he groaned. Oi'll jist have to orbit free, an' let 'em lay alongside an' board, an' explain the situation." His teeth grated together. "All of which, if Oi know inny wan thing about the Force's hoigh command, will cost us aisy anither hour."

Emily smiled. The *Mercury Girl* continued to recede from the goal.

"I t'ink ve is in good broadcast range now," said Herr Syrup.

His boat was again inert, having exhausted nearly all its final cask. New Winchester waxed, already spreading across several degrees of arc. If only some circling Navy ship would happen to see the vessel; but no, the odds were all against that— Ah, well. Weary, bleary, but justifiably triumphant, Herr Syrup tapped the oscillator key.

Nothing happened.

"Vere's de spark?" he complained.

"I don't know," said Sarmishkidu. "I thought you would."

"Bloody hell!" screamed Claus.

Herr Syrup snarled inarticulately and tapped some more. There was still no result. "It vas O.K. ven I tested back at de ship," he pleaded. "Of course, I did not dare test mush or de Ersers might overhear, but it did vork. Vat's gone crazy since?"

"I would suggest that since most of the transmission apparatus is outside by the batteries, something has worked loose," answered Sarmishkidu. "We could easily have jarred a wire off its terminal or some such thing."

Herr Syrup swore and stuffed himself up into the spacesuit and tried to see what was wrong. But the oscillator parts were not accessible, or even visible, from this position: another point overlooked in the haste of constructing the boat. So he would have to put on the complete suit and crawl back to attempt repairs; and that would expose the interior of the cabin, including poor old Claus, to raw space— "Oh, Yudas," he said.

There was no possibility of landing on New Winchester; there never had been, in fact. Now the barrel didn't even hold enough reaction mass to establish an orbit. The boat would drift by, the oxygen would be exhausted, unless first the enemy picked him up. Staring aft, Herr Syrup gulped. The enemy was about to do so.

He had grinned when he saw the two Erse-controlled ships nudge each other out of sight. But now one of them, yes, the *Girl* herself, with a grapnel out at the side, came back into view.

His heart sagged. Well, he had striven. He might as well give up. Life in a yeast factory was at least life.

No, by heaven!

Herr Syrup struggled back into the box. "Qvick!" he yelled. "Give me de popcorn!"

"What?" gaped Sarmishkidu.

"Hand me up de carton vit' popcorn t'rough the valve, an' den give me about a minute of full acceleration forvard."

Sarmishkidu shrugged with all his tentacles, but obeyed. A quick pair of blasts faced the boat away from the approaching ship. Herr Syrup's spacegauntleted hand closed on the small box as it was shoved up through the stovepipe diaphragm, and he hurled it from him as his vessel leaped ahead.

The popcorn departed with a speed which, relative to the *Girl,* was not inconsiderable. Exposed to vacuum, it exploded from its pasteboard container as it gained full, puffy dimensions.

Now one of the oldest space war tactics is to drop a mess of hard objects, such as ball bearings, in the path of a pursuing enemy. And then there are natural meteors. In either case, the speeds involved are often such as to wreak fearful damage on the craft. Rory McConnell saw a sudden ghastly vision of white spheroids hurtling toward him. Instinctively, he stopped forward acceleration and crammed on full thrust sideways.

Almost, he dodged the swarm. A few pieces did strike the viewport. But they did not punch through, they did not even crater the tough plastic. They spattered. It took him several disgusted minutes to realize what they had been. By that time, the Erse ship had come into view with the plain intention of stopping him, laying alongside, and finding out what the devil was wrong now. When everything had been straightened out, a good half-hour had passed.

"Dere is for damn sure no time to fix de oscillator," said Herr Syrup. "Ve must do vat ve can."

Sarmishkidu worked busily, painting the large pretzel box with air-sealing gunk. "I trust the bird will survive," he said.

"I t'ink so," said Herr Syrup. "I t'row him and de apparatus avay as hard as I can. Ve vill pass qvite close to de fringes of de asteroid's atmosphere. He has not many minutes to fall, and de oxygen keeps him breat'ing all dat vile. Ven de whole t'ing hits de air envelope, dere vill be enough impact to tear open de pretzel box and Claus can fly out."

The boat rumbled softly, blasting as straight toward New Winchester as its crew had been able to aim. It gave a feeble but most useful weight to objects within. Sarmishkidu finished painting the box and attached a tube connecting it with one of the oxygen flasks.

"Now den, Claus," said Herr Syrup, "I have tied a written message to your leg, but if I know you, you vill rip it off and eat it as soon as you are free. However, if I also know you, you vill fly straight for de nearest pub and try to bum beer. So, repeat after me: 'Help! Help! Invaders on Grendel.' Dat's all. 'Help! Help! Invaders on Grendel.' "

"McConnell is a skunk," said Claus.

"No, no! 'Help! Halp! Invaders on Grendel.' "

"McConnell sheats at cards," said Claus. "McConnell is a teetotaler. McConnell is a barnacle on de nose of sociely. McConnell—"

"No, no, no!"

"No, no, no!" echoed Claus agreeably.

"Listen," said Herr Syrup after a deep breath. "Listen, Claus. Please say it. Yust say, 'Help! Help! Invaders on Grendel.' "

"Nevermore," said Claus.

"We had best proceed," said Sarmishkidu.

He stuffed the indignant crow into the box and sealed it shut while Herr Syrup got back in the spacesuit: including, this time, its pants. And then, having aerated himself enough to stand vacuum for a while, Sarmishkidu unfastened the armor from the hatch cover. Herr Syrup popped inboard. Air rushed out. Herr Syrup pushed the oxygen cylinder, with Claus' box, through the hole.

New Winchester was so close it filled nearly half the sky. Herr Syrup made out towns and farms and orchards, through fleecy clouds. He sighed wistfully, shoved the tank from him as hard as he could, and watched it dwindle. A moment afterward, the asteroid itself began to recede; he had passed peri-New Winchester and was outward bound on a long cold orbit.

"So," said Herr Syrup, "let De Erse come pick us up." He realized he was talking to himself: no radio, and anyhow Sarmishkidu had curled into a ball. There was no point in resealing the cabin—the other oxygen bottle was long exhausted.

"I never t'ought de future of two nations could depend on vun old crow," sighed Herr Syrup.

"Tsk-tsk-tsk," said Rory McConnell. "An' your radjo didn't work afther all?"

"No," wheezed Herr Syrup. He was still a little blue around the nose. It had been a grim wait of many hours, crouched in the spinning wreckage of his boat; his suit's air supply had been low indeed when the *Mercury Girl* finally came to him.

"An' ye say your puir auld bird was lost as well?"

"Blown out ven de gasket blew out dat I told you of." Herr Syrup accepted a cigar and leaned his weary frame gratefully back against the gymbal-swung acceleration bench in the saloon. There was still no functioning compensator and the *Mercury Girl,* with an Erse crew aboard, was pacing back to Grendel at a quarter gee.

"Thin all your throuble was for nothin'?" McConnell did not gloat; if anything, he was too sympathetic.

"I guess so," Herr Syrup answered rather bleakly, thinking of Claus. No doubt the crow would look at once for human society; but what was he likely to convey except a string of oaths? Too late, the engineer saw that he should have put some profanity into his message.

"Well, ye were a brave foe, an' 'tis daily Oi'll come by Grendel gaol to cheer yez," said McConnell, clapping his shoulder. "For Oi fear the Jiniral will insist on lockin' yez up for the duration. He was more than a little annoyed, I can tell yez; he was spittin' rivets. He wanted for to leave yez drift off to your fate, an' we had quoite an argymint about it, wherefore Oi am now jist anither proivate soldier in the ranks." McConnell rubbed his large knuckles reminiscently. "Howivver, Oi won me point. Himself wint back hours ago in t'ither ship, but he let me stay wi' this wan and pick yez up. But Oi dared not go close to the Anglian capitol, but must wait until we had orbited so far away that no chance Navy ship would see us an' git curious. An' so long a delay meant ye were hard to foind. We were almost too late, eh, fwhat?"

"Ja," shuddered Herr Syrup. He tilted the proffered bottle of Irish to his lips.

"But all's well that inds well, even though 'twas said by an Englishman," chuckled McConnell. He squeezed Emily's hand. She smiled mistily back at him. "For Oi'll regain me auld rank as soon as the swellin' in the Jiniral's eye has gone down so he can see how much Oi'm nayded. An' thin 'twill be toime to effect the glorious ridimption iv Laoighise, an' thin, Emily, you an Oi will be wed, an' thin — Well!" He coughed. she blushed.

"Ja," snorted Sarmishkidu. "Goot ending, huh? Mit mine pizznizz ruined, und me in chail, und maybe a var started, und dot dummkopf of a Shalmuannusar claiming he proofed der sub-unitary connectifity t'eorem before I did, as if publishing first had anyt'ings to do mit priorities—Ha!"

"Oh, dear," said Emily compassionately.

"Oh, darlin'," said McConnell.

"Oh, sweetheart," cooed Emily, losing interest in Sarmishkidu.

"Oh, me little turtle dove," whispered McConnell.

Herr Syrup fought a strong desire to retch.

A bell clanged. McConnell stood up. "That's the signal," he said. "We've come to Grendel an' Oi'll be wanted on the bridge. 'Twill be an unendin' few minutes till Oi see yez ag'in, me only wan."

"Good-by, my beloved," breathed the girl. Herr Syrup gritted his teeth.

Her manner changed as soon as the Erseman had left. She leaned over toward the engineer and asked tensely: "Do you think we succeeded? I mean, do you?"

"I doubt it," he sighed, "In de end, only Claus vas left to carry de vord." He explained what had happened. "Even supposing he does repeat vat he vas supposed to, I doubt many people vould believe a crow dat has not even been introduced."

"Well—" Emily bit her lip. "We tried, didn't we? But if a war does come . . . between Rory's country and mine— No! I won't think about it!" She rubbed small fists across her eyes.

Uncompensated forces churned Herr Syrup on his seat. At last they quieted; the engine mumble died; a steady one gee informed him that the *Mercury Girl* was again berthed on Grendel. "I'm going to Rory," said Emily. Almost, she fled from a saloon.

Herr Syrup puffed his cigar, waiting for the Erse to come take him to prison. The first thing he would do there, he thought dully, was sleep for about fifty hours— He grew aware that several minutes had passed. Sarmishkidu sat brooding in a spaghetti-like nest of tentacles. The ship had grown oddly quiet, no feet along the passageways or— Shrugging, Herr Syrup got up, strolled out of the saloon and down a corridor, entered the open main passenger air lock and looked upon the spacefield.

The cigar dropped from his mouth.

The Erse flag was down off the staff and the Anglian banner was back. A long, subdued line of green-clad men shuffled past a heap of their own weapons. Trucks were bringing more every minute. They trailed one by one into a military transport craft berthed nearby, accompanied by hoots and jeers—and an occasional tearful au revoir—from the Grendelian townspeople crowded against the port fence. A troop of redcoats with bayoneted rifles urging the prisoners along, and the gigantic guns of H.M.S. *Inhospitable* shadowed the entire scene.

"Yudas priest!" said Herr Syrup.

He stumbled down onto the ground. A brisk young officer surveyed him through a monocle, sketched a salute, and extended an arm. "Mr. Syrup? I understood you were aboard. Your crow, sir."

"Hell and damnation!" said Claus, hopping from the Anglian wrist to the Danish shoulder.

"Pers'nally," said the young man, "I go in for falcons."

"You come!" whispered Herr Syrup. "You come!"

"Just a short hop, don't y' know. We arrived hours back. No resistance, except . . . er—" The officer blushed.

"I say, don't look now, but that young lady in the, ah, rather brief costume and, er, passionate embrace with the large chappie . . . d' you know anything about 'em? Mean to say, she claims she's the vicar's daughter and he's her fiancé and she goes where he goes, and really, sir, I jolly well don't know whether to evacuate her with the invaders or give him a permit to remain here or, or what, damme!"

Herr Syrup stole a glance. "Do vatever seems easiest," he said. "I don't t'ink to dem it makes mush difference."

"No. I suppose not." The officer sighed.

"How did you find out vat vas happening here? Did de crow really give somevun my message?"

"What message?"

"Go sputz yourself!" rasped Claus.

"No, not dat vun," said Herr Syrup quickly.

"My dear sir," said the officer, "when a half-ruined oxygen bottle, with the name *Mercury Girl* still identifiable on it, lands in a barley field . . . and we've been wirelessed that that ship is under quarantine . . . and then when this black bird flies in a farmer's window and steals a scone off his tea table and says, ah, uncomplimentary things about one Major McConnell . . . well, really, my dear chap, the farmer will phone the police and the police will phone Newer Scotland Yard and the Yard will check with Naval Intelligence and, well, I mean to say it's obvious, eh, what, what, what?"

"Ja," said Herr Syrup weakly. "I suppose so." He hesitated. "Vat you ban going to do vit' de Ersers? Dey vas pretty decent, considering. I vould hate to see dem serving yail sentences."

"Oh, don't worry about that, sir. Mean to say, well, it's a bally embarrassing situation all around, eh? *We* don't want to admit that a band of half-cocked extremists stole one of our shires right out from under our noses, so to speak, what? We can't suppress the fact, of course, but we aren't exactly anxious to advertise it all over the Solar System, y' know. As for the Erse government, it doesn't want trouble with us—Gaelic Socialists, y' know, peaceful chappies—and certainly doesn't want to give the opposition party a leg up; so they won't support this crazy attempt in any way. At the same time, popular sentiment at home won't let 'em punish the attempt either. Eh?

"Jolly ticklish situation. Delicate. All we can do is ship these fellows home with our compliments, where their own government will doubtless give 'em a talking to and let 'em go. And then, very much on the Q.T., I'm jolly well sure the Erse Republic will pay whatever damage claims there are. Not more than a few thousand pounds' worth all told, I'd say. Your own ship ought to collect a goodly share of that, eh, what?"

By this time Sarmishkidu von Himmelschmidt had reached the foot of the ladder. "I'll haff you know I haff t'ousands of pounds in damaches coming!" he whistled in outrage. "Maybe millions! Vy, chust der loss of pizznizz during der occupation, at a rate of easy five hundred pounds a day—let's call it a t'ousand pounds a day to put it in round figures—dot adds up to—"

"Oh, come now, old chap. come now. Tut-tut!" The officer adjusted his monocle. "It isn't all that bad. Really it isn't, don't y' know. After all, even if nothing is done officially, word will get around. People will come in jolly old floods to see the place where all this happened. I'll wager my own missus makes me vacation here this season. Cloak and dagger stuff, excitin', all that sort of piffle, eh, what? Why, it'll be the busiest tourist season in your history, by Jove."

"Hm-m-m." Sarmishkidu stroked his nose thoughtfully. A gleam waxed in one bulging eye. "Hm-m-m. Yes. The atmosphere of international intrigue . . . sinister spies . . . double agents . . . beautiful females luring away secret papers . . . yes, the first place on Grendel to furnish that kind of atmosphere will— Hm-m-m. I must make some alterations, I see. To hell with *Gemütlichkeit*. I want my tavern to have an uncertain reputation, yes, that's it, uncertain." He drew himself up and flourished a dramatic tentacle. "Chentlemen, you iss now looking upon der proprietor of der Alt Heisenberg Rathskeller!"

THE END

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1. The names and addresses of the publisher, editor, managing editor, and business managers are: *Publishers,* Street & Smith Publications, Inc., 575 Madison Avenue, New York 22, N. Y.; *editor,* John W. Campbell, Jr., 575 Madison Avenue, New York 22, N. Y.; *managing editor,* none; *Business manager,* none.

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SCIENCE FICTION

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BY P. SCHUYLER MILLER

THE SHEEP AND THE GOATS

A RECENT letter from a member of the Research Section of Civilian Saucer Intelligence of New York complains that in my comments on saucer books, I have not discriminated between the serious researchers and the crackpots. I should be commenting, not on the writers and their books, but on the reports of sightings, this reader contends.

The first criticism is probably true, and more may come of it, for I have offered to go over any group of books that this CSI-NY member accepts as serious and reappraise them if that seems necessary. The second objection is not valid for this particular department; if I were trying to give you a reasoned opinion on whether UFO's are spaceships from other worlds, I would certainly throw out the entire occultist school of UFOlogy. What I have been trying to do by ringing in their books, is to show how the mystics are apparently drowning out and obscuring the serious side of saucer intelligence.

The problem is one of evidence. If we accept Donald Keyhoe's books —apart from certain shortcomings in the scientific judgment category that I have mentioned before—as representative of the sincere, serious school of UFO study, then the immediate conclusion one must reach is that we are dealing only with secondhand, hearsay accounts of the allegedly "good" sightings. We are told, in abstract, or capsule, or paraphrased form, what *Major Keyhoe says* the witnesses saw.

This is not a criticism of the writer, but a statement of a situation. The various UFO organizations such as Civilian Saucer Intelligence may well have in their files the complete, verbatim, eyewitness testimony of everyone involved in each sighting. If they have, I very much doubt that any publisher is going to print this documentary chronicle. It would be terribly expensive, and about its only market would be the people who already have it.

Ironically, the only allegedly eyewitness books we have are those by people like Adamski, Bethurum and Fry, who claim that they have ridden in saucers and/or talked with saucer people. These are the accounts, often mutually contradictory, that are the foundation of the occultist wing of UFOlogy, and I presume they are what my correspondent means by "the crackpots." But, *as evidence,* these are the "sworn" testimony of witnesses, and the "serious" books are only hearsay.

There are two recent books, in their own ways studies of evidence as applied to highly controversial questions (almost in the category of saucers), which show how evidence has to be used if it is to prove or disprove anything scientifically. The first is "The Kensington Stone, A Mystery Solved," by Erik Wahlgren, Professor of Scandinavian Languages at the University of California in Los Angeles (*University of Wisconsin Press, Madison, Wisconsin; 1958; 228 pp.; $5.00*). The other is "ESP and Personality Patterns," by Dr. Gertrude R. Schmeidler of the City College of New York psychology department and Dr. R. A. McConnell, of the University of Pittsburgh biophysics department (*Yale University Press, New Haven, Connecticut; 1958; 136 pp.; $4.00*). I don't think every reader of Astounding should rush to buy either book, but if you're interested in either subject you should know what's in them.

Schmeidler and McConnell use the terms "sheep" and "goats" to distinguish between those of their subjects who believed in the possibility of ESP, and those who did not. It's a very convenient division for this whole area: the sheep who believe in flying saucers from other worlds, and the goats who do not; the sheep who accepted Hjalmar Holand's assurances that the survivors of a Viking expedition carved and set up a runestone in Minnesota, some time in 1362, and the goats who have denounced the Kensington stone as a forgery not much older than the reported find-date in 1898.

So far as the Kensington stone is concerned, I'll admit that I've been a sheep. I saw no reason why the Norse—or anybody else, for that matter—should not have reached and wandered around in America long before Columbus reported back, and the imposing series of well written, seemingly scholarly books and articles by the stone's chief prophet, Hjalmar Holand, convinced me of two things: (a) that the stone had been dug up in 1898 from under the roots of a largish tree that had grown over and around it, showing that it was reasonably old; and (b) that the peculiar combination of inconsistencies in the forms of runes, use of words, et cetera on the stone were such as to point straight at the fourteenth century period when it was supposed to have been carved.

Now Dr. Wahlgren has shoved me out of the sheep pen, and down among the goats with reasonable people. I don't like a lot of things about his book, and I think he has almost as much of the proselyter about him as Holand, but he certainly puts the skids under the "best" of the evidence for the stone's authenticity, and raises more than reasonable doubts about the rest.

The catch has been that for fifty years, since Holand first appointed himself the Kensington stone's defender—and owner—he has screened most of the evidence that reached ordinary people like me. His books were exciting, well written, and attracted space in the reviews, the newspapers, and on the library shelves. The dissenting articles by philologists, historians and archeologists appeared in obscure scientific journals, for the most part Scandinavian journals, that only a handful of people in this country ever saw. On a strict vote, Holand had it.

There was another element, which is also important in the flying saucer question and in the H-bomb fallout controversy: who is a competent witness? Keyhoe's main point in his books and lectures is now that too many expert witnesses have seen UFO's for them to be explained away—but a critic of saucers—not of saucer books—must now ask, "Expert in what?"

Inadvertently or by clever maneuvering, Wahlgren says, Holand got a very pretty little feedback arrangement working in his favor. The historians and archeologists were not in the least impressed with the evidence that the stone had been buried underground for five hundred years before the Swedish farmer, Olof Ohman, found it under rather obscure circumstance and lugged it into town. But they accepted Holand's assurance that "all" the Scandinavian and American experts on runes agreed that the runes were authentic fourteenth century work. They couldn't prove, in their own field of competence, that the stone *hadn't* been underground for years; so they deferred to the experts in the field where they had no personal knowledge. Simultaneously, the runologists who considered the carving a lot of garbled nonsense, were assured that the historians had "proved" the stone's age—so they went along with the evidence of *those* experts.

If we are to accept *his* evidence—and he quotes documents and tells you where to find them—Professor Wahlgren has tipped over the entire pile of "evidence." There were clear affidavits as to the finding of the stone, and the tree that grew over it; he shows that they are contradictory, that the testimony was taken long after the event, and that—in a quite normal way, it must be admitted—some unknown person obviously wrote out the statements, said "Is that the way it was?", and the testators said "Ja!" and signed at the bottom.

It was argued that Olof Ohman was a simple, practically illiterate farmer who knew nothing of runes or Vikings, and that nobody in the neighborhood had any means of faking the inscription so cleverly. Well, Ohman was by no means an illiterate person, he had at least one book in his library with a runic alphabet, and the newspapers of the time—especially the Scandinavian-American ones that he and his neighbors read, and in which his "discovery" was reported—were full of the Norse discovery of America, runes, and all that went with them. (To inject a science-fictive note, Wahlgren suggests that the popularity of Jules Verne's "Journey to the Center of the Earth" and Ignatius Donnelley's "Atlantis," with its accounts of strange inscriptions elsewhere in America, may have helped inspire the whole hoax.)

A hoax is what he considers it: something to amaze the neighbors and get the experts quarreling among themselves, to lighten the dullness of the long, cold Minnesota nights. Then Holand took up the cause, and the simple joke ran away and became a crusade.

"ESP and Personality Patterns" is not at all this kind of book. Like Harlow Shapley's book on the Inner Metagalaxy, that I reviewed a while back, this is a data-packed progress report that suggests much and proves very little—as the co-authors are the first to agree. Parts of it are pretty nearly unreadable, except to the student of personality or statistics, and for this I do blame the authors, since they obviously intend the book to be read by laymen. These things should be explained, and explained simply—as other technical jargon is.

This is what real evidence is like. Technically, I suppose it is still hearsay, since we aren't given the score sheets for the 250,875 ESP card trials made by 1157 CCNY students between 1943 and 1951. The data are reduced to tables. Still, the buck has nowhere else to go, and we're arguing directly with Schmeidler as an experimenter and McConnell as a statistician, not with what some third person says they did or said.

The results reported are much less impressive than those gained by Rhine and Pratt at Duke University, Soal in England, and many others, with picked subjects who made consistently high scores. The CCNY students were close to a random section of all of us, and the results therefore indicate what may be true of us all, rather than of a gifted few.

"Sheep," who believed in ESP, scored better than chance in the thousands of trials I've cited above: not much, but a little better. "Goats," who disbelieved, made *poorer* than chance scores . . . and as has often been pointed out, this is as good an indication as a high score that pure chance isn't working.

With the smaller number of subjects who took various psychological tests of personality, including Rorschach ink-blot tests, well-balanced people seemed to score higher than repressed types. Uncritical, receptive, "let-it-ride" subjects did best, and this was supported by tests with a small group of hospital patients, suffering from concussion, who were in a completely passive, unreasoning, let-it-come mood—and scored best of all. Other tests indicated that aggressive types score low.

You will be interested in the last part of the last chapter, on further problems and routes for ESP research. I suspect this is largely McConnell's contribution. The time has come, he insists, to stop spending time and money looking for psi powers in everybody; we'll advance most by finding people who have these powers, and learning what-all they can do and how. (This has been the English approach all along, more than the American.)

Since there are many fields in electronics and physics where a very slight imbalance can be enormously amplified by a suitable "trigger" action, he suggests experiments to see whether psychokinesis can be used to throw these reactions in the "wrong" direction. Information theory may be more useful than ordinary probability, in studying data and devising experiments. (One possible case is cited in which telepathy may have loused up an experiment in magneto-optics.)

The kind of evidence Schmeidler and McConnell set before you is dull —but it's evidence. You can form your own opinions on the basis of what's there, if you know how to use the stuff. The kind of "evidence" in Holand and Keyhoe and many, many more is fascinating—but it's hearsay. Some is good, some is bad; some is honest, some is mistaken, some is faked. How is a layman to tell which is which? Don't be surprised if the guy at the next desk finds Adamski as reasonable as Von Braun. He was there, wasn't he? And Von Braun isn't anywhere near the Moon . . .

THE BEST SCIENCE FICTION STORIES AND NOVELS: NINTH SERIES, edited by T. E. Dikty. Advent: Publishers, Chicago. 1958. 258 pp. $3.50.

The same fan-backed publishing house that gave us damon knight's critical studies of science fiction "In Search of Wonder," as its first offering, has now picked up the series of annual anthologies started by Fell. For some reason, it's a much better collection than the last one. It appears to cover 1956 and 1957, although it represents itself as a "best of 1957"; perhaps hereafter it will really be annual again.

There are no novels—not even the long one-shot stories that appear under that claim—in the volume, which contains twelve short stories and novelettes, four from 1956 and the rest from '57. Five of the twelve were published here in Astounding Science Fiction; the others come from *If, F & SF, Venture, Satellite,* and *Science Fiction Stories*. There is also the editor's summing up of science-fictional news of the year, and Earl Kemp's increasingly complete index to SF books published during the year.

This is still not the balanced collection that it was when Everett Bleiler had a hand in the editing, and it should be clear that it doesn't represent the kind of searching and probing of all kinds of sources for all kinds of stories, that Judith Merril has given us in her annual anthologies for Gnome and Dell. If there had been more anthologies lately, this one might not seem quite so good—but it is good.

It might also be pointed out that only two of the dozen stories are by authors who might be called old-timers in the field: Leigh Brackett's "The Other People" ("The Queer Ones" in *Venture*), in which the old theme of visiting aliens is handled so well that its age doesn't matter, and Eric Frank Russell's "Into Your Tent I'll Creep," a joyous little yarn which asks who *really* runs Earth.

The second stratum of venerability gives us Poul Anderson with "Call Me Joe," also published here, a picture of strange life on the surface of Jupiter that is one of my favorites in the book. Chad Oliver, in "Didn't He Ramble" (*F&SF*), is a real surprise from this source: it could have been lost in a Bradbury collection, except that it's less artificial—an old man buying his last years on a planetoid rebuilt in the image of New Orleans in the great days of jazz. Algis Budrys' "Nightsound" was in *Satellite* as "The Attic Voice"; it's the old story of the alien who needs help, well done. And maybe Tom Godwin can be called venerable enough so that his "Last Victory" (*If*) belongs here: a politically divided crew is cast away on a hostile planet.

As proof that John Campbell is still shaping up good new writers, the book opens with Michael Shaara's "2066: Election Day," whose title tells the story, and Kate Wilhelm's "The Mile-Long Spaceship," a puzzling little tale of interstellar telepathy. John J. McGuire's "The Queen's Messenger" is an entertainment, and a good one: it also appeared here. James McConnell shows us a future in which Earth has become one vast cemetery, a kind of "elephants' graveyard" for the galaxy, in "Corrupt" (*If* again). Lloyd Biggle, Jr., has one of the best yarns in the book in "The Tunesmith," from *If,* which shows a future in which the highest form of creative art is writing commercials. And Carol Emshwiller closes with "Hunting Machine," from *Science Ficton Stories;* it's another satiric projection of a present foible, to a time when even hunting is mechanized.

Could be this series will again become a "must." I hope so.

ROBOTS AND CHANGELINGS, by Lester del Rey. Ballantine Books, New York. No. 246. 1958. 175 pp. 35¢

Lester del Rey is a writer who is doing far too little writing these days. Although there is one 1957 story in this collection, some of them date back to 1949 and to this magazine and *Unknown.* It's a good collection, but not as good as it would be if the author were still writing. Look what's happened to Sturgeon, who started off at about the same time, and in much the same vein, then carved a place all his own.

Perhaps the distinguishing feature of a del Rey story is its deep humanity, even when the character is a robot or an extraterrestrial. Pan, in the opening story, his last worshiper dead, is someone whose job-finding problem is believable. The fairy Coppersmith in another much reprinted tale, also job-hunting in a world which has lost its magic, is someone else we'd like to meet. And although the secret of "The Monster" is guessable, we nevertheless are with him all the way.

The newest of the eleven stories, "Little Jimmy," is a gentle ghost story with a strange twist that shows del Rey hasn't lost the touch. "No Strings Attached" is a modernized demon-pact tale in which logic backfires. On the whole, the fantasies are the memorable stories in this lot.

On the science-fiction side we have slight, unostentatious "idea" tales with characters who matter. In "The Still Waters" an old couple, dragging their decrepit freighter from moon to moon, finally have to face up to the obsolescence of themselves and their ship. In "Kindness" the obsolescence of a race—the human race—is handled in a strangely effective way. "Stability" offers a kind of variant on John Campbell's classic "Who Goes There?", as explorers on Venus try to discover which of them has been duplicated by the Venusians.

The dog who is the hero of "Keepers of the House" is someone else we'd like to know: I think this is my favorite of the SF group. On the other hand, there is "Uneasy Lies the Head" with its difficultly simple solution to the problem of

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finding a benevolent dictator's successor. "The Monster" can't really be summed up without giving its gimmick away, though it may be no secret to a veteran reader. Finally, "Into Thy Hands" is to me the least successful of the lot—a variant on the Adam and Eve theme, as robots try to remake a world Man has destroyed. "Keepers of the House" did the same kind of thing much better.

I hope the next collection of del Rey stories will be all new ones.

THE SECOND WORLD OF IF, Quinn Publishing Co., Kingston, N.Y. 1958. 159 pp. 50¢

I hope you got this second collection of stories from *IF* while it was on the stands—if it was on them in the town where you live. Someone got my review copy, and I had a tough time locating another.

If is one of the magazines that is consistently pushing the "big three" and that gets rather better distribution than at least two of them. Its stories do very well in anthologies: second only to Astounding in this year's Dikty choice.

You get nine stories this time. James Blish's "The Thing in the Attic" is one section of his "Seedling Stars" novel: the part about the treetop people. Raymond F. Jones has one of his best in "The Colonists": all that's hard to swallow is the ex-

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perimenter's dogged misreading of history. James E. Gunn's "A Monster Named Smith" is like a small "Needle," with a protoplasmic alien hiding in someone's body. Charles Beaumont's "The Jungle" is a brutal fantasy of voodoo versus science in Africa, and Gordon Dickson's "The Odd Ones," on the other hand, is a pleasant little tale in which two other-starly monsters puzzledly study Man.

From Philip K. Dick you expect extras—and get them. "The Mold of Yancy" is a story of opinion-making on Callisto. You can be sure of pretty obvious satire in most SF magazines, and you get that, too, in Robert F. Young's "Chrome Pastures," with its religion of the automobile showroom, and in Bryce Walton's cruel picture of the ultimate in "togetherness," "The Happy Herd." Good gimmick stories are harder to come by these days—and harder to do. Charles Fontenay's "Z" puts its secret into its title, and utilizes a rather recent suggestion from the physics labs.

Won't somebody persuade Street & Smith to give us an occasional Astounding anthology like this one —or preferably an annual like *F&SF's?*

THE END

(*Continued from page* 7)

viduals and the answer of the Group, and you'll get that answer.

This is the fundamental mechanism whereby a Group can be effectively wiser than any member of the group.

Now if the individuals guess right only fifty per cent of the time, it's clear that a majority vote will be right only fifty per cent of the time, also.

But here's where things get really interesting. If the individuals guess right only forty per cent of the time *. . . the Group will guess wrong every time!* With perfect, logical consistency!

The result is that the individuals of the Group now observe that the Group is incredibly stupider than any member of the Group.

The above material suggests part of why "nothing succeeds like success"—and why "nothing fails like failure."

If a cultural group is getting right answers, their answers are solving, and thereby simplifying, the problems the culture encounters. A group of a given level of competence will, under those circumstances, be reducing the difficulty of the problems they face, and hence their success will grow exponentially.

But if they start making bad decisions, those decisions complicate the problems to be solved. Then not only do they have to solve normal, current problems—and those were already proving too tough for them!—but in addition, have to handle the complications resulting from their bad decisions.

And this, my friends, is why the Dictatorship of the Proletariat is invariably followed by the Classless Society of anarchy, chaos, and utter breakdown.

And it makes not the slightest difference whether you call him "Proletarian" or "Plebian" or "Common Man"; when he gains control of the decision-making mechanism of the culture, chaos is the only logical result possible.

Reason: Societies are built by the constructive thought of abnormally brilliant men—by a Blue Ribbon Jury. They construct it by solving problems that stopped those around them. The United States, for example, was constructed by a Blue Ribbon panel of men like Washington, Jefferson, Franklin, Hamilton, and their peers.

Every society is formulated by abnormally brilliant men.

Normal men can't solve the problems involved—even with the help of the lessons the brilliant founders taught, because conditions change, and demand decisions.

The major problem is that logic is incompetent, and Logic is the only communicable method of thinking we have. We all *use* another, and far more competent method, called variously "intuition" or half a dozen other things—including "emotion." Emotional thinking is anathema to logicians. They simply say "Emotional thinking! It's illogical!"

So it is. Maybe that fact, if properly studied, would lead to something that did not have the characteristic of Entropy. I don't say it *would*—but this much I will assert; it couldn't be much worse than Logic, with its built-in sure-for-certain dead-end of Entropy.*

The characteristic bad-decisions that the Group makes once they get below the fifty per cent-right point seem to be quite consistent, too. For one thing, they don't understand why the Group is making such incredibly stupid decisions, and immediately start looking for Who Is Doing This To Us.

There's always someone around to point out an Enemy to blame the stupidity of the group on. The one thing that *can't* be pointed out as the source of trouble is the Common Man himself. The only cure for the situation is, obviously, to go back to a Blue Ribbon Jury group—which would require that the Common Man vote himself out of power.

So the Big Business Man, or the Politician, or the Union Leaders, or People With Red Hair, or any other non-common-man characteristic can be settled on. Hitler rose to power in such a situation by pointing out the Jews. In Rome, the Christians got the office.

One thing can be guaranteed; a Group making wrong decisions can be guaranteed to pick, with uncanny accuracy, the worst decisions available. And as their bad decisions make the problems more complex, naturally they get to be better and better at wrong-guessing.

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The next step is a Fantasy Cure. "If I were a Dictator," says the Common Man, "I'd get this thing fixed."

Now logically, you can't prove my opinion isn't as good as yours. And you can't prove Bill Blowhard's opinion stinks — not to Bill, you can't. Lou Loudmouth may agree with you entirely that Bill Blowhard's a fool—but that's because Lou knows that Bill's opinion's wrong, because *his* is right.

---

*Any logicians objecting to this statement, please show how Logic can be a useful, dependable map of physical reality, which has Entropy as a dominant characteristic, and not have that characteristic itself. Pragmatic evidence is nonlogical, but valid, and pragmatic evidence shows Entropy is a major characteristic of physical systems.

So, presently, there's an Emperor, or Dictator, or Fuehrer, or Boss, or Big Brother.

But this is *not* the same thing as an early-stage King. The Emperor appears to be One Man Rule—but he definitely isn't. He's a Fantasy Symbol—he's Bill Blowhard become Dictator; he's the Common Man's, the Plebeian's, fantasy of himself as dictator. And the Emperor is controlled by the populace.

Characteristically, since the Gods have the power to make What They Say come true, the Emperor will be, effectively, deified.

Usually, the first Boss isn't too bad; Augustus was a genuine first-rate organizer. Hitler was a remarkably efficient organizer—a genuine, no-kidding Mad Genius. And you'll notice that, even in these times, Hitler & Co. did some diddling around with the matter of Religion; they were nudging in the direction of the Old Gods. Given a generation or two, as the Roman Emperors were, Der Fuehrer would have been deified, too.

The essence of the Boss is that he is *the Common Man's fantasy-projection of himself*—and that means having the godlike power of having his commands become Truth.

Logic, however, is leading straight toward the No-Difference situation. In a no-difference situation, where all opinions are equally good, you're heading for Anarchy, the Classless Society. Because in a Classless Society there can be no crimes; if there were, you'd automatically have a criminal class. And to have crime means to have judgments on other people's opinions; to say "His opinion is wrong," and seek to impose that judgment.

Logic denies the validity of Judgment, for Judgment entails value—and Logic denies any value save True and False. Logic requires a Classless Society, in which every man's opinion is equal to every other's.

We're nibbling toward it very happily here in the United States right now. Murder used to be considered a crime—but now it's rated as a fairly serious misdemeanor. Oh, not *legally*—but "I don't care what you *say;* what do you *do?*" Juveniles, in particular, are being very clearly shown that we have a nearly Classless Society, for when half a dozen juveniles murder a youngster on the street in New York, they are freed with little more than a severe *tsk-tsk-tsk*. And in England, there is a strong movement to remove homosexuality from the list of crimes. After all, we mustn't impose our opinions on others, must we?

Yes . . . and homosexuality was accepted in Greece, just before its fall. And in Rome, in the latter days. And in Hitlerite Germany. After all, now, you can't prove, logically, that the homosexual doesn't have as much right to his opinion as you do to yours, can you?

No, you can't.

This is the way a world ends . . . Not with a bang; with a whimper.

A whimper of "I've got a right to my own opinion, ain't I?"

THE EDITOR

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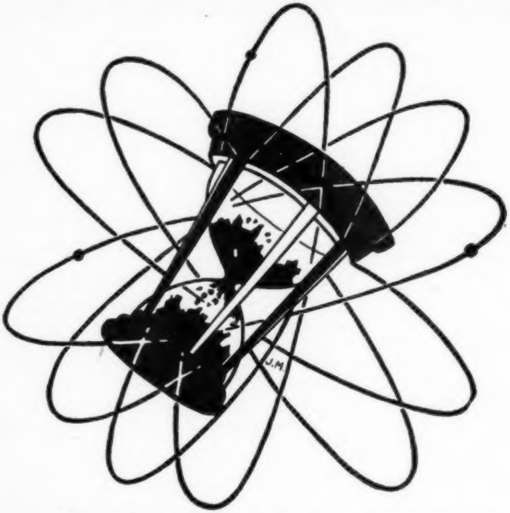

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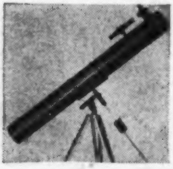

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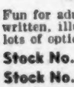

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